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Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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Maximum Match 10
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein search, using sw model
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1359
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1: /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1980.DAT:*

2: /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1982.DAT:*

3: /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1982.DAT:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1983.DAT:*
/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1984.DAT:*
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/SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1998.DAT:*
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first 45 summaries
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

10	9	00	7	6	. UI	4.	ω	N	_	Result No.
1216	1238	1238	1238	1238	1238	1238	1238	1238	1238	Score
89.5	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	Query Match Length DB
352	365	365	365	365	352	352	352	352	352	Length
19	23	22	19	19	23	23	22	22	22	DB
AAW69698	ABB08040	AAB47270	AAW57212	AAW69697	ABB84956	ABB95562	AAB50930	AAB65294	AAY72878	ID
Mouse coxsackievir	Human coxsackie-ad	Human CAR. Homo s	Human coxsackievir	Human coxsackievir	Human PRO5723 prot	Human angiogenesis	Human PRO5723 prot	Human PRO5723 prot	. Human PRO5723 prot	Description

45	44	43	42	41	40	9	38	37	36	3 5	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11
341.5	41	348	348	351.5	351.5	351.5	351.5	351.5	362.5	363.5	366.5	366.5	367.5	375.5	378.5	378.5	378.5	378.5	378.5	378.5	378.5	378.5	378.5	378.5	379.5	395	407	407	800	1142	1142	1142	1175	1216
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270	268	259	259	319	319	319	273	273	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	373	226	426	294	192	397	277	264	290	376
20	20	22	22	22	20	18	20	20	22	22	22	22	22	22	23	23	23	22	22	22	22	21	21	20	22	23	22	22	22	20	20	20	23	19
AAY23327	AAY08073	AAU18085	ABB10530	AAB65863	AAY23323	AAW14146	AAY23329	AAY08075	AAB85862	AAB48150	AAB48148	AAB48126	AAB48149 ·	AAB48147	AAU83656	ABB84848	ABB95454	AAB65293	AAB48145	AAB48108	AAU12365	AAB33430	AAB44248	AAY41692	AAB48146	ABP41477	ABB10359	AAU18038	AAB85732	AAW82731	AAW82730	AAW82729	AAU83699	AAW57213
rel	Human A33 protein.	Human immunoglobul	Human cDNA SEQ ID	Human A33 protein		Human A33 antigen.	An A33 related ant	Human A33 protein	Murine adipocytes-	A236		A236	Mouse A236 variant	A236	Human PRO protein,	Human PRO363 prote	angiog	Human PRO363 prote	Human A236 variant	Human A236 polypep	Human PRO363 polyp	w	PRO363	PRO			-	Human immunoglobul	μ.		Adenovirus SCAR.RG	<		Mouse coxsackievir

ALIGNMENTS

AAY72878 standard; Protein; 352 AA

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RESULT 1
AAY72878
ID AAY7
XX AAY7
XX 31-M
AC AAY7
XX 31-M
XX Huma
XX Huma
XX Huma
XX anti
XW a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sarcoidosis; idiopathic inflammatory myopathy; Sjogren's syndrome; autoimmune thrombocytopenia; immune-mediated renal disease; hepatitis; demyelinating polyneuropathy; Guillian-Barre syndrome; Whipple's disease; hepatobiliary disease; primary biliary cirrhosis; sclerosing cholangitis; inflammatory bowel disease; gluten-sensitive enteropathy; skin disease; allergic rhinitis; atopic dermatitis; food hypersensitivity; urticaria; eosinophilic pneumonia; hypersensitivity pneumonitis; graft rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; PRO5723; antiinflammatory; dermatological; immunosuppressive; antirheumatic; antiarhritic; osteopathic; antianaemic; haemostatic; antithyroid; antidiabetic; antiviral; antipsoriatic; antiallergic; antiasthmatic; inhibitor; therapy; systemic lupus erythematosis; spondyloarthropathy; systemic sclerosis; systemic vasculitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-MAY-2001 (first entry)
                                                                       Modified-site
                                                                                                                                                                           Protein
                                                                                                                                                                                                                                                                               Key
Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diopathic pulmonary fibrosis; graft-versus-host-disease.
                                                                       /label= Mature_human_PRO5723_protein
31..38
                                                                                                                                                                     /label= Signal_peptide 20..352
                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
'label= Tyrosine_kinase_phosphorylation_site
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The present sequence is PRO5723 protein encoded by DNA82361 cDNA CC clone. PRO protein, its agonist or antagonist or its antibody which are ccapable of enhancing or inhibiting the proliferation of T-lymphocytes CC or of increasing the infiltration of inflammatory cells into a tissue are useful in the diagnosis and treatment of immune-related diseases CC in mammals. The PRO protein is useful for treating systemic lupus CC arthritis, spondyloarthropathy, systemic sclerosis, idiopathic cronic arthritis, spondyloarthropathy, systemic sclerosis, idiopathic cronic Sarcoidosis, autoimmune haemolytic anaemia, autoimmune thrombocytopenia, CC inflammatory myopathy, Sjogren's syndrome, systemic vasculitis, casacoidosis, autoimmune haemolytic anaemia, autoimmune thrombocytopenia, CC demyelinating disease of the central or peripheral nervous system, CC idiopathic demyelinating polyneuropathy, Guillian-Barre syndrome, CC disease, inflammatory demyelinating polyneuropathy, Hepatobiliary CC biliary cirrhosis, granulomatous hepatitis, sclerosing cholangitis, inflammatory bowel disease, gluten-sensitive enteropathy, Whipple's CC disease, autoimmune or immune-mediated skin diseases such as bullous Skin disease, autoimmune or immune-mediated skin diseases such as bullous CC skin disease, such as autoimmune chronics, immunologic diseases of the lung cod hypersensitivity and urticaria, immunologic diseases of the lung cod such as essinophilic pneumonias, idiopathic pulmonary fibrosis, hyper-gensitivity memorias, idiopathic pulmonary fibrosis, hyper-
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18-FEB-2000; 2000WO-US04342.
01-MAR-2000; 2000WO-US05601.
30-MAR-2000; 2000WO-US08439.
17-MAY-2000; 2000WO-US13705.
22-MAY-2000; 2000WO-US14042.
30-MAY-2000; 2000WO-US14941.
05-JUN-2000; 2000US-0209832.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 10; Fig 10; 118pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New PRO polypeptides for treating immune related and inflammatory diseases such as rheumatoid arthritis, systemic vasculitis, asthm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    autoimmune hemolytic anemia, and diabetes mellitus
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, Wood WI;
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298..301
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96..125
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transplantation
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associated diseases
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Best Local &
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                08-OCT-1999
30-NOV1999
01-DEC-1999
16-DEC-1999
20-DEC-1999
05-JAN-2000
06-JAN-2000
11-FEB-2000
11-FEB-2000
22-FEB-2000
24-FEB-2000
                                                                                                                                                 26-JUL-1999;
28-JUL-1999;
17-AUG-1999;
                                                                                                                                                                                                                                                                                                            Human; secreted and transmembrane protein; PRO; cytostatic; cell death; cancer; chromosomal mapping; gene mapping; tissue typing; diagnostic assay.
                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                      Human
                                                                                                                                                                                                                                                                                                                                                                                                                 AAB65294 standard; Protein; 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               graft rejection or graft-versus-host-disease
                                                                                                                              15-SEP-1999
15-SEP-1999
                                                                                                                                                                                                                                  30-MAR-2000; 2000WO-US08439
                                                                                                                                                                                                                                                                                                                                                                          02-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                              AAB65294;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAVIGVLLALVLIGLIIFCCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KVKKAPGVANKKIHLVVLVKPSGARCYVDGSEEIGSDFKIKCEPKEGSLPLQYEWQKLSD
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      2000WO-US00219
2000WO-US00376
2000WO-US03565
2000WO-US04341
2000WO-US04914
2000WO-US04914
2000WO-US05004
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                                                                                                                                                                                                                                                                                                                                                     protein sequence
                                                                                                                            99US-0145698.
99US-0146222.
99US-0149396.
99WO-US21090.
99WO-US21547.
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                                                                             99WO-US30095
99WO-US30911
                                                                                      99WO-US28301
99WO-US30095
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                                                                                                                                                                                           99US-0143048
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                                                                                                                      -0158663
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Pred. No. 2
                                                                                                                                                                                                                                                                                                                                                     SEQ
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                                                                                                                                                                                                                                                                                                                                                     ID NO:505
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les 15;
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RESULT 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes human secreted and transmembrane PRO proteins. The PRO proteins have cytostatic activity. The PRO proteins can be used for targeted delivery of bioactive molecules, such as toxins, radiolabels or antibodies, that cause cell death. PRO nucleotide sequences, and their fragments, can be used as hybridisation probes, in chromosomal and gene mapping, and in the generation of anti-sense RNA and DNA. They may also be used to produce transgenic animals which are used to develop and screen therapeutically useful reagents. The PRO nucleotide and protein sequence can be used for tissue typing and in treating cancer. Anti-PRO antibodies can be used in diagnostic assays. AAF44270 to AAF4470 represent PCR primers and hybridisation probes used in the isolation of human PRO sequences. AAF44087 to AAF44269 and AAB65154 to AAB65300 represent human PRO polynucleotide and protein sequences given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
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Ferrara N, r
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Roy MA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI;
                             Human PRO5723 protein
                                                                                                                    AAB50930 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; Fig 318; 935pp; English.
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                                                            21-MAR-2001
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20-MAR-2000; 2000WO-US07377
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DB; AAF44263.
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 PRO;
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a N, Fong S, Gerber H
li CJ, Gurney AL, Klj
Stewart TA, Tumas D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
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Fong :
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antiinflammatory;
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                                                          (first entry)
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                                                                                                                    Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           targeted cell death
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            to produce polypeptides used to targe
as toxins, radiolabels or antibodies,
targeted cell death -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Botstein D. Desnoyers L. Ea
Joer H., Gerritsen ME., Goddad
Kljavin IJ, Napier MA, Pan
nas D, Watanabe CK, Williams
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1238;
Pred. No. 2
dermatological; antiarthritic;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; DB 22;
2.4e-108;
nes 15;
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Wood WI;
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20-DEC-
05-JAN-
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15-MAR-2000;
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22-FEB-2000;
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30-NOV-1999;
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15-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antidiabetic;
antiallergic;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hepatobiliary
                                                                                      20-MAR-2000;
                                                                                                                                                             18-FEB-2000;
                                                                                                                                                                                                                                                                                               15-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antirheumatic;
                                         17-MAY-2000;
(GETH ) GENENTECH INC.
                                                                                 99WO-US30911
2000WO-US00219
2000WO-US00276
2000WO-US03565
2000WO-US04341
2000WO-US04341
2000WO-US04414
2000WO-US04414
2000WO-US06884
2000WO-US06884
2000WO-US068777
                                                                                                                                                                                                                                                                                                                                                                                                                    2000WO-US15264
                           2000WO-US14042
                                        2000WO-US13705
                                                         2000WO-US08439
                                                                     2000WO-US07532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nootropic; neuroprotective; hepatotropic; antiasthmatic; immune related disorder; disease; autoimmune disease; allergy.
                                                                                                                                                                                                                                    99WO-US28634.
99US-0170262.
                                                                                                                                                                                                                                                                 99US-0162506.
99WO-US28313.
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99WO-US20111.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antianaemic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                immunosuppressive;
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Wood WI; Ashkenazi lebert Ą, AJ, Baker Henzel W, KP, Chan Kabakoff RC, Goddard A, (Shelton DL, Godowski PJ, Tumas D, Watanabe Gurney

N-PSDB; 2001-025253/03.

Thirty three nucleic acids encoding PRO polypeptides which are useful in the diagnosis and treatment of immune related disorders, e.g. systemic lupus erythematosus, rheumatoid arthritis, osteoarthritis, thyroiditis and diabetes mellitus

Claim 58; Fig 58; 218pp; English

anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus, immune-mediated renal disease, demyelinating diseases of the central and peripheral nervous systems (such as multiple sclerosis, idiopathic demyelinating polyneuropathy or Guillain-Barre syndrome, and chronic inflammatory demyelinating polyneuropathy), hepatobiliary diseases (such as infectious, autoimmune chronic active hepatitis, primary inflammatory bowel disease, gluten-sensitive enteropathy and Whipple's disease, autoimmune or immune-mediated skin diseases (such as bullous skin diseases, erythema multiforme, contact dermatitis, psoriasis), skin diseases, erythema multiforme, contact dermatitis, psoriasis), The present sequence is one of thirty three novel PRO polypeptides. The PRO polypeptides, anti-PRO antibodies, agonists and antagonists are useful for treating and diagnosing immune related disorders such as systemic lupus erythematosus, rheumatoid arthritis, osteoarthritis, juvenile chronic arthritis, spondyloarthropathies, systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's systemic vasculitis, sarcoidosis, autoimmune haemolytic diseases such as asthma, allergic rhinitis, atopic dermatitis

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RESULT 4
ABB95562
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Matches 233
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25-JUL-2000;

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23-AUG-2000;

24-AUG-2000;

15-SEP-2000;

15-SEP-2000;

18-SEP-2000;

18-SEP-2000;

18-SEP-2000;

19-SEP-2000;

10-NOV-2000;

10-NOV-2000;

10-NOV-2000;
                                                                                                                                                                                                                                                                                                                     Human; anglogenesis; PRO protein; cardiovascularisation; wound; atherosclerosis; cardiac hypertrophy; gene therapy; endothelial cardiant; cytostatic; antiangiogenic; hypotensive; vulnerary; antiarteriosclerotic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   food hypersensitivity and urticaria), immunological diseases of the lung (such as ecsinophilic pneumonias, idiopathic pulmonary fibrosis and hypersensitivity pneumonitis), transplantation associated disease including graft rejection and graft-versus-host diseases.
                                                                                                                                                                                                                                                                                                                                                                             Human angiogenesis related protein PRO5723 SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                        19-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABB95562
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
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 2000US-219556P.
2000US-220664P.
2000US-220664P.
2000US-222695P.
2000US-0643657.
2000US-0833528.
2000US-0864610.
2000US-0865350.
2000US-0865350.
2000US-0709238.
2000US-0709238.
2000US-0709238.
2000US-0709238.
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89.3%;
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Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              261
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                                                                                                                                                                                                                                                                                                                                 gene therapy; endothelial disorder;
hypotensive; vulnerary;
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2.4e-108;
15;
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22-JAN-2001;
28-FEB-2001;
28-FEB-2001;
01-MAR-2001;
09-MAR-2001;
14-MAR-2001;
12-MAR-2001;
10-MAY-2001;
10-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
25-MAY-2001;
                                                                                                                                                                                                                                                                          angina, myocardial infarctions, thrombophlebitis, lymphangitis, angiogenesis (such as breast carcinoma and liver carcinoma) and healing. The present sequence is a PRO protein of the invention.
                                                                                                                                                                                                                                                                                                                                  The present invention provides the protein and coding sequences of human PRO proteins. These are useful for treating or diagnosing a cardiovascular, endothelial or angiogenic disorder, including cardiac hypertrophy, trauma, cancer, age-related macular degeneration, hypertension, arterial restences, rheumatoid arthritis, atherosclerosis, hypertension, arterial restences in the constitution of the constit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              One hundred and eighty seven nucleic acids encoding PRO polypeptides, useful in diagnosis and treatment of cardiovascular (e.g. myocardial infarction), endothelial or angiogenic disorders in a mammal -
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Godowski PJ, Gurney AL,
Stephan JF, Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (PAON/)
(STEP/)
(WATA/)
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(GODD/)
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(MARS/)
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N-PSDB; ABL95700.
                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim
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                                                                                                                                                       al Similarity
233; Conserv
61
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PAONI N F.
STEPHAN J F.
WATANABE C K.
WILLIAMS P M.
WOOD W I.
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GODOWSKI P J.
GURNEY A L.
HILLAN K J.
MARSTERS S A.
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BAKER K P.
FERRARA N.
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                      PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
                                                                          PADNQKVDQVIILYSGDKIYDDYYPDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
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2001US-0816744
2001US-0816744
2001US-0828366
2001US-0854208
2001US-0854208
2001US-0866028
2001US-0866034
2001US-0870574
2001WS-US17092
2001WS-US17092
2001WS-US17893
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2001US-0767609.
2001US-0796498.
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L, Hillan KJ, Marsters SA, Pa
CK, Williams PM, Wood WI, Ye
                                                                                                                                                         13;
                                                                                                                                                       Score 1238; DB 23;
Pred. No. 2.4e-108;
3; Mismatches 15;
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'e W;
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20-EBB-2001

28-FBB-2001

28-FBB-2001

28-FBB-2001

10-MAR-2001

11-MAR-2001

11-MAY-2001

11-MAY-2001

15-MAY-2001

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25-MAY-2001
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                                               2001US-0808689.
2001US-0816744.
2001US-0828366.
2001US-0854208.
2001US-0854208.
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2001US-0866034.
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2000WO-US32678.
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2000US-0665350.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             degeneration, atherosclerosis, hypertension arterial restenosis, rheumatoid arthritis, angina, myocardial infarctions, thrombophlebitis, lymphangitis, tumour angiogenesis (such as breast carcinoma and liver carcinoma) and wound healing. The PRO polynucleotides have applications in molecular biology, including use as hybridisation probes, and in chromosome and gene mapping. ABL88259 to ABL88267 represent primers and probes used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               One hundred and eighty seven nucleic acids encoding PRO polypeptides, useful in diagnosis and treatment of cardiovascular (e.g. myocardial infarction), endothelial or angiogenic disorders in a mammal -
           HCAR; coxsackievirus receptor; CVB; adenovirus; Ad2 receptor; Ad5 receptor; human; infection; vaccine; therapy.
                                                         Human coxsackievirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
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N-PSDB; ABL88211.
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01-JUN-2001; 2001WO-US17800
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                                                                                                                                                   standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                    (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AA;
                                                                                                                                                   Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91.1%;
                                                       and Ad2 and Ad5 receptor HCAR protein.
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Williams PM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1238;
Pred. No. 2
                                                                                                                                                                                                                              261
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Homo sapiens.

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Best Local :
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                                                                                                                                                                                                                                   This is the amino acid sequence of numear ...... serves as a cellular receptor for adenoviruses of the serotypes and 5 (subgroup C) and for the group B coxsackieviruses (CVB). The sequence was deduced from an isolated cDNA clone for HCAR (see AAV50429). The invention also provides host cells transformed with DNA molecules encoding HCAR or mouse MCAR (see AAW69698) and methods of producing the recombinant proteins or their derivatives. These proteins, their extracellular domains, as well as oligopeptides proteins, their extracellular domains, are claimed. Isolated HCAR or
                                                                                                                                                                             (see AAW69699-708) which bind virus, are claimed. Isolated HCAR (MCAR proteins or their fragments or variants are used to prevent treat virus infections and for inhibiting the infectivity of Ad2, Ad5 or CVB. Methods are also provided for detecting or measuring the quantity of HCAR or MCAR in a sample, and for identifying analytes capable of binding to HCAR or MCAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA encoding human receptor for adenovirus C and coxsackievirus B - for preventing and treating viral infection and rendering cells susceptible to transformation by adenoviral vectors in gene therapy
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                                                MALLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS
                                                                                                                                                                                                                                                                                                                                                                                                          Page 67-68; 88pp; English.
PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC 120
                             MALLLCFVLLCGVVDFARSLSITTPEEMIEKAKGETAYLPCKFTLSPEDQGPLDIEWLIS
                                                                                                                                                 365 AA;
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                                                                                                     91.1%;
89.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "extracellular immunoglobulin domain"
                                                                                    13;
                                                                                     Score 1238; DB 19;
Pred. No. 2.6e-108;
3; Mismatches 15;
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        The present sequence represents human coxsackievirus and adenovirus of creceptor (CAR). The present invention also describes: (1) a method for modulating CAR expression comprising contacting the cell with an agent compound the cell with an agent compound the cell associated activity or CAR nucleic acid expression, such that a cell associated activity is altered relative to a cell compound for detecting the presence of CAR in a biological sample compound for detecting the presence of CAR in a biological sample of comprising contacting a biological sample with an agent capable of compound the compound the presence of CAR is detected. CC Modulation of CAR is useful for treatment of cardiac infection, e.g. compocarditis, pericarditis or dilated cardiomyopathy, or infection of the central nervous system, e.g. a non-specific febrile illness or contral nervous system, e.g. a non-specific febrile illness or conset diabetes mellitus. Probes derived from CAR nucleic acids are
                                                                                                                                                                                                                                                                                          DNA encoding coxsackie virus and adenovirus receptor - useful for modulation of e.g.\ cardiac, pancreatic or gastrointestinal infection
                                                                                                                                                                                                                                                                                                                                              N-PSDB;
                                                                                                                                                                                                                                                                                                                                                           WPI; 1998-207384/18
                                                                                                                                                                                                                                                                                                                                                                                          Bergelson JM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diabetes mellitus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        myocarditis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human;
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                                                                                                                                                                                                                                                                                                                                                                                          Horowitz
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cardiomyopathy; meningoencephalitis;
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                                           Transgenic mouse comprising a nucleotide sequence Coxsackie virus and/or Adenovirus receptor (tCAR) the analysis of cellular physiology -
                                                                                               WPI; 2001-366549/38.
N-PSDB; AAC85813.
                                                                                                                                                                                                                                                                                                     Key
                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                 Coxsackie virus and/or Adenovirus receptor; CAR; transgenic mouse; transgene; tCAR; transduction; integrin; gene transfer; lymphocyte lymphocyte-specific transcription regulatory sequence; T cell.
                                                                                                                                                                                                                                                                                                                                                                                                      Human CAR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein are useful for blocking CAR expression. Cell-free assays which include combining CAR protein and a candidate/test compound are useful in screening for drugs which interact with CAR protein.
                      Claim 3; Column 15-18; 21pp; English
                                                                                                                                 DeGregori J;
                                                                                                                                                                                  14-JUL-1998;
                                                                                                                                                                                                                                                        US6245966-B1
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sequence shows a Coxsackie virus and/or Adenovirus receptor (CAR)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KVKKAPGVANKKIHLVVLVKPSGARCYVDGSEEIGSDFKIKCEPKEGSLPLQYEWQKLSD
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/note= "Claimed tCAR"
                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                            entry)
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Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                        encoding a 1 polypeptide
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RESULT 9
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Best Local
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                                                                                                 06-OCT-2000; 2000US-327562P.
06-OCT-2000; 2000US-0684552.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polypeptide. The DNA encoding this sequence was used in the method of the invention to produce a transgenic mouse whose genome comprises a transgene comprising a nucleotide sequence encoding a truncated CAR polypeptide (tCAR) operably linked to a lymphocyte-specific polypeptide regulatory nucleotide sequence. The tCAR is expressed transcription regulatory nucleotide sequence.
                                                                                                                                                  05-OCT-2001; 2001WO-EP11514
                                                                                                                                                                                      11-APR-2002
                                                                                                                                                                                                                      WO200229072-A2
                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                           hepatotropic;
                                                                                                                                                                                                                                                                                                          Targeting molecule; adenoviral receptor domain; trimerisation; coxsackie-adenovirus receptor; CAR; transmembrane protein; cyto
                                                                                                                                                                                                                                                                                                                                                                Human coxsackie-adenovirus receptor (CAR).
                                                                                                                                                                                                                                                                                                                                                                                                  27-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                    ABB08040;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABB08040 standard; Protein; 365
                                              (NOVS)
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                                              NOVARTIS AG. NOVARTIS-ERFINDUNGEN VERW GES MBH.
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                                                                                                                                                                                                                                                                                             virucide;
                                                                                                                                                                                                                                                                                           gene therapy; human;
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Kim JG,

Smith T,

Stevenson

SC,

Kaleko M;

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AAW69698
ID AAW6
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AC AAW6
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Best Local Sim.
Matches 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                involves contacting the adenoviral particle with the targeting molecule to form a complex, and contacting the cell with the complex, and in delivering a heterologous gene selectively to a cell. The complex is used for preparing a medicament for treatment of disease in a human mammal, such as cancer, preferably, adenocarcinoma of the prostate, by gene therapy. The present sequence represents the human coxsackie-adenovirus receptor (CAR), a 46 kba transmembrane protein. The soluble form of CAR (sCAR) can be used in the targeting molecule of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rne invention relates to a targeting molecule that comprises a solub-
adenoviral receptor domain, a trimerisation domain and a targeting li-
domain. The targeting molecules are used for targeting an adenoviral
particle to a cell expressing a cell surface molecule. The method
                                                                                                                                                                                                                                                                                                                                                                 MCAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 14; Page 47; 75pp; English.
                                                                                   Region
                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                 Mus sp
                                                                                                                                                                                                                                                                                                                                                                                                                        Mouse coxsackievirus and Ad2 and Ad5 receptor MCAR protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW69698 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a targeting molecule that addenoviral receptor domain, a trimerisation domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            receptor domain, a trimerization domain and a targeting ligand
                                                                                                                                                                                                   Domain
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                                                                                                                                                                                                                                                                                                                                        receptor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002-471317/50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                            /note=
47..51
                                                                                   /note=
45..52
                                                                                                                                          /note=
155..22
                                                                                                                                                                                                Location/Qualifiers
note= "Ad2/5 and CVB binding region (Claim 6)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein; 352
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89.3%;
                                                                                                                                               . 220
                                                                                                                                                                                                                                                                                                                                        receptor; CVB; adenovirus; Ad2 infection; vaccine; therapy.
                                                                                                                                                                      "extracellular
                                                   "CVB binding region (Claim 6)"
                                                                                                                "extracellular
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Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 261
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                                                                                                             immunoglobulin domain"
                                                                                                                                                                    immunoglobulin domain"
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                                                                                                                                                                                                                                                                 This is the amino acid sequence of mouse MCAR, a protein that conserves as a cellular receptor for adenoviruses of the serotypes 2 and 5 (subgroup C) and for the group B coxsackieviruses (VB). The sequence was deduced from an isolated cDNA clone for MCAR (see sequence was deduced from an isolated cDNA clone for MCAR (see DNA molecules encoding MCAR or human HCAR (see AAW69697) and methods of producing the recombinant proteins or their derivatives. These proteins, their extracellular domains, as well as oligopeptides (see AAW69699-708) which bind virus, are claimed. Isolated HCAR or MCAR proteins or their fragments or variants are used to prevent or treat virus infections and for inhibiting the infectivity of Ad2, Ad5 or CVB. Methods are also provided for detecting or measuring the guantity of HCAR or MCAR in a sample, and for identifying analytes capable of binding to HCAR or MCAR.
                                                                                                                                                                                            Matches
                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA encoding human receptor for adenovirus C and coxsackievirus for preventing and treating viral infection and rendering cells susceptible to transformation by adenoviral vectors in gene the
                                                                                                                                                                                                                                             Sequence
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             SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA
                                             PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
                                                                                                                                                          MALLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS
SQTMPTPWLAEMTSPVISVKNASSEYSGTYSCTVQNRVGSDQCMLRLDVVPPSNRAGTIA
                                                                                             PSDNQIVDQVIILYSGDKIYDNYYPDLKGRVHFTSNDVKSGDASINVTNLQLSDIGTYQC
                                                                                                                                              MARLLCFVLLCGIADFTSGLSITTPEQRIEXAKGETAYLPCKFTLSPEDQGPLDIEWLIS
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RESULT 11
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                                                                                         The present sequence represents mouse coxsackievirus and adenovirus creceptor (CAR). The present invention also describes: (1) a method for modulating CAR expression comprising contacting the cell with an agent which modulates CAR protein activity or CAR nucleic acid expression, contacting the cell associated activity or CAR nucleic acid expression, contact that a cell associated activity is altered relative to a cell associated activity of the cell in the absence of the agent; and (2) a method for detecting a biological sample with an agent capable of comprising contacting a biological sample with an agent capable of cetecting CAR protein or mRNA such that the presence of CAR is detected. CC modulation of CAR is useful for treatment of cardiac infection, e.g. compression of CAR is useful for treatment of cardiac infection of the central nervous system, e.g. a non-specific febrile illness or constituted in the constitution of the respiratory or gastrointestinal tract or childhood conset diabetes mellitus. Probes derived from CAR nucleic acids are useful for hybridisation assays, and antibodies raised against CAR protein are useful for blocking CAR expression. Cell-free assays which include combining CAR protein and a candidate/test compound are useful cin screening for drugs which interact with CAR protein.
 Query Match
Best Local Similarity
Matches 229; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA encoding coxsackie virus and adenovirus receptor - useful for modulation of e.g. cardiac, pancreatic or gastrointestinal infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mouse; coxsackievirus; adenovirus; receptor; CAR; cardiac infection; myocarditis; pericarditis; dilated cardiomyopathy; meningoencephalitis; pancreatic infection; acute pancreatitis; gastrointestinal tract;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1998-207384/18.
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                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure;
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 Score 1216; DB 19;
Pred. No. 3.2e-106;
5; Mismatches 16;
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RESULT 12
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ID AAU8360
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01-DEC-2000;
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20-DEC-2000;
28-FEB-2001;
10-MAY-2001;
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24-AUG-2000;
15-SEP-2000;
10-NOV-2000;
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25-JUL-2000;
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Grimaldi d
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breast cancer; prostate tumour; rectal tumour; liver tumour;
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28-JUL-2000;
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                                                                                                                                   ) GENENTECH INC.
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2001US-0854280.
2001WO-US17092.
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2000US-220638P.
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2000US-220607P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                               ĄĽ,
                                                               Gerritsen ME, Goddard A, Godowski Smith V, Stephan JF, Watanabė CK,
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                                                             Godowski PJ;
                                                                   WI;
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N-PSDB; ABK33643

WPI; 2002-172001/22

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RESULT 13
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The PRO polypeptides are useful for diagnosing tumours, especially lung cancer, colon cancer, breast tumour, prostate tumour, rectal tumour or liver tumour. The PRO polypeptides are useful for stimulating the proliferation of, or gene expression, in pericyte cells, for stimulating the proliferation or differentiation of chondrocyte cells, for stimulating stimulating the release of tumour necrosis factor-alpha from human blood, for stimulating or inhibiting the proliferation of normal human dermal fibroblast cells. The PRO polypeptide may also be used as molecular weight markers and for tissue typing. The PRO nucleic acids have applications in molecular biology, including use as hybridisation probes, and in chromosome and gene mapping. AAU83592-AAU83713 represent human PRO protein sequences of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        encoding PRO polypeptides. The seque encode human secreted proteins. The agonists and antagonists are useful
                                                                                                                            pACTSG2-SCAR; chimeric protein; adenoviral fibre protein; monomer; trimerisation domain; affinity; substrate; gene therapy vector; attachment; interaction assay; infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          such as lung cancer, cole tumour or liver tumour -
               03-DEC-1998
                                                                              Synthetic
                                                                                               Mastadenovirus.
                                                                                                                                                                                              Adenovirus
                                                                                                                                                                                                                             29-MAR-1999
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                                               WO9854346-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hundred and twenty two nucleic acids encoding PRO polypeptides, ful for treating a PRO related disorder and for diagnosing tumours h as lung cancer, colon cancer, breast tumour, prostate tumour, re
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           invention
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                                                                                                                                                                                                                                                                                          standard; Protein; 264
                                                                                                                                                                                                                                                                                                                                                                                                                                           MALLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS
                                                                                                                                                                                                                                                                                                                                                                            GALIGILL
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                                                                                                                                                                                             PACTSG2-SCAR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      relates to one hundred and twenty two nucleic acids polypeptides. The sequences of the 122 PRO polynucleotides secreted proteins. The PRO nucleic acids, polypeptides, antagonists are useful for treating a PRO related disorder
                                                                                                                                                                                                                           (first entry)
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                                                                                                                                                                                             protein
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Pred. No. 1.6e-102;
.3; Mismatches 14;
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RESULT 14
AAW82730
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Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                novel monomers having an N-terminus of an adenoviral fibre protein and a trimerisation domain. Such monomers have lower affinity for native substrate than the native adenoviral fibre trimer. Cell lines containing such monomers are used (i) to propagate adenovirus for use as gene therapy vectors (for in vitro or in vivo applications, (ii) as reagents for studying adenoviral attachment and infection, and (iii) in receptor-ligand interaction assays. The new viruses produce minimal ectopic infection (they can not infect native host cells) so are safer as vectors and can be engineered for selective targeting to other cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New adenoviral fibre trimer with reduced binding - useful for, e.g. preparing gene therapy vector ectopic infection for in vitro applications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Brough DE,
Wickham TJ,
                                          trimerisation
                                             SCAR.RGD; chimeric protein; adenoviral fibre protein; trimerisation domain; affinity; substrate; gene thera
                                                                                                                                                                           AAW82730 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This sequence represents a novel adenovirus chimeric pr
pACTSG2-SCAR. This protein is used in a method for the
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                                                                                                                    29-MAR-1999
                                                                                                                                                AAW82730
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                                                                                        Adenovirus
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                                                                                        SCAR. RGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        264 AA;
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Yonehiro
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97US-0047849
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                              affinity; substrate; gene on assay; infection.
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Pred. No. 1.9e
15; Mismatches
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                                             therapy
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120 120 60 60

Mastadenovirus

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RESULT 15
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Matches 214
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New adenoviral fibre trimer with reduced binding to native substrate - useful for, e.g. preparing gene therapy vector with minimal ectopic infection for in vitro applications
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
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Wickham TJ,
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                           29-MAR-1999
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28-MAY-1997;
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Adenovirus pACSG2SCAR.sig chimeric protein
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                                                                               standard;
                                                                                                                                                  GS 242
                                                                                                                                                                            GA 242
                                                                                                                                                                                                        SOKMPTSWLAEMTSSVISVKNASSEYSGTYSCTVRNRVGSDQCLLRLNVVPPSNKAGSGS
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Yonehiro
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                           (first entry)
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97US-0047849
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                                                                               Protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pACSG2SCAR.sigDEL. This protein is used in a method for the construction of novel monomers having an N-terminus of an adenoviral fibre procesin and a trimerisation domain. Such monomers have lower affinity for native substrate than the native adenoviral fibre trimer. Cell lines containing such monomers are used (i) to propagate adenovirus for use as gene therapy vectors (for in vitro or in vivo applications, (ii) as reagents for studying adenoviral attachment and infection, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New adenoviral fibre trimer with reduced binding - useful for, e.g. preparing gene therapy vector ectopic infection for in vitro applications
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trimerisation domain; affinity; substrate; gene therapy ve
infection; attachment; interaction assay; vector; monomer.
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28-MAY-1997;
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                                   Q.
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                                                                                                   SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA
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Yonehiro
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Search completed: July Job time : 38 secs

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Listing first 45 summaries
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Perfect score:
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seq length: 2000000000
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                                               Issued_Patents_AA:*
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/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
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US-08-928-383B-26
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US-08-928-465A-2
US-09-9254-465A-2
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US-09-9254-965A-2
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US-09-936-936-93
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US-09-188-930-331
US-09-188-930-331
US-09-188-930-331
US-09-188-930-331
US-09-254-465A-1
US-09-254-95A-1
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US-09-336-536-29
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US-09-272-496-2
US-08-928-383B-2
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                                       Sequence 3, Appli
Sequence 2, Appli
Sequence 23, Appli
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Sequence 37, Appli
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Sequence 40, Appli
Sequence 41, Appli
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Sequence 2, Appli
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153	154	154	154	154	155	155	155	156	156	158	158	161.5	163	163.5	178.5	180	181.5	
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269	306	306	306	306	269	269	269	209	209	209	209	300	246	321	298	260	312	
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US-09-430-503-2	PCT-US95-02576-17	US-09-651-200-17	US-08-702-525-17	US-08-205-697A-17	US-09-430-503-8	US-09-430-503-6	US-09-430-503-4	US-09-430-503-22	US-09-430-503-18	US-09-430-503-24	US-09-430-503-20	US-09-254-465A-10	US-09-336-536-31	US-09-254-465A-2	US-09-152-060-76	US-09-254-465A-23	US-09-254-465A-9	
Sequence 2, i	Sequence 17	Sequence 17	Sequence 17	Sequence 17	Sequence 8,	Sequence 6,	Sequence 4,	Sequence 22	Sequence 18	Sequence 24	Sequence 20,	Sequence 10	Sequence 31	Sequence 2,	Sequence 76	Sequence 23,	Sequence 9,	
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ALIGNMENTS

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US-08-979-424-3
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Patent No. 5942606
GENERAL INFORMATION:
Query Match
Best Local Similarity
Matches 233; Conserv
                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-855-0555
TELEPAX: 650-845-4166
                                                                                                                                                                                                                                                                                                                                                            FILING DATE: Filed Her
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
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OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/979,424
                                                                                              IMMEDIATE SOURCE:
LIBRARY: GenBank
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc
STREET: 3174 Porter Dr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Lal, Preeti
APPLICANT: Corley, Neil C.
TITLE OF INVENTION: VIRAL RECEPTOR PROTEIN
NUMBER OF SEQUENCES: 3
                                                                   MEDIAL GELL LIBRARY: GELL TONE: 1946351
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Score 1238; DB 2
Pred. No. 1e-114;
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                              DB 2;
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US-08-928-383B-2
; Sequence 2, Application
; Patent No. 6210921
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Matches
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SEQ ID NO 2
LENGTH: 365
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TITLE OF INVENTION: Adenoviral mediated gene transfer into lymphocytes
FILE REFERENCE: 90-98
CURRENT APPLICATION NUMBER: US/09/272,496
CURRENT FILING DATE: 1999-03-19
EARLIER APPLICATION NUMBER: US 60/092782
EARLIER FILING DATE: 1998-07-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS:
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                                                                                                                                                                                                               SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA
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                                               US/08928383B
Finberg,
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Pred. No. le
 Jeffrey M.
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 Bergelson,
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                                                                                                    Sequence 23, Application US/08928383B Patent No. 6210921
            GENERAL INFORMATION:
APPLICANT: Robert W. Finberg, Jeffrey M.
APPLICANT: and Marshall'S. Horwitz
TITLE OF INVENTION: CAR, A No. 6210921e1
TITLE OF INVENTION: Receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 232;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: (617)742-4214
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE DOCKET NUMBER: DF
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEPAX: (617)742-4214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: 13-SEP-1996
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA: APPLICATION NUMBER:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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ADDRESSEE: LAHIVE & COCKFIELD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein
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NUMBER OF
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TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION
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SEQUENCES:
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JENTION: CAR, A.No. 6210921el Coxsackievirus and Adenovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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88.9%;
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Pred. No. 2.5e-113;
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                                  Coxsackievirus
                                                                   Bergelson,
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                                    and Adenovirus
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CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP

28 State Street

ADDRESSEE:

Boston

Massachusetts

COUNTRY:

USA

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Best Local S
Matches 229
                                                                                                                                                          Sequence 24, Application US/08928383B Patent No. 6210921
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                                                                                                                                           GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 23:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: DFN
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
                                                  APPLICANT: Robert W. Finberg, Jeffrey M. Bergelson, APPLICANT: and Marehall S. Horwitz TITLE OF INVENTION: CAR, A No. 6210921el Coxeackiev TITLE OF INVENTION: Receptor NUMBER OF SEQUENCES: 26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                             CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER:
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ATTORNEY/AGENT INFORMATION:
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                  ADDRESSEE:
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28 State Street
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                LAHIVE & COCKFIELD, LLP
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internal
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88.1%; Pred. No. 1.2e-112;
ative 15; Mismatches 16;
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                                                                                       6210921el Coxsackievirus
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                                                                                       and Adenovirus
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RESULT 6
US-08-928-383B-26
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                                                                                                                                                                                             Sequence 26, Application US/08928383B Patent No. 6210921
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Best Local
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                                                                                                                                                                               GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
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                                                                NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD,
                                                                                                             APPLICANT: Robert W. Finberg, Jeffrey M. Bergelson,
APPLICANT: and Marshall S. Horwitz
TITLE OF INVENTION: CAR, A NO. 6210921el Coxsackievirus and Adenovirus
TITLE OF INVENTION: Receptor
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TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                               CITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
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TOPOLOGY: linear
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                                              STREET:
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COUNTRY:
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Similarity 88.1%;
29; Conservative 19
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               Massachusetts
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                                                28 State Street
USA
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(617)742-4214
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Pred. No. 1.2e-112;
5; Mismatches 16;
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Best Local S
Matches 229
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INFORMATION FOR SEQ ID NO: 26:
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TOPOLOGY: linear
MOLECULE TYPE: protein
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LENGTH: 365 amino acid
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                              APPLICANT: Robert W. Finberg, Jeffrey M. Bergelson, APPLICANT: and Marshall S. Horwitz TITLE OF INVENTION: CAR, A No. 6210921el Coxsackiev. TITLE OF INVENTION: Receptor NUMBER OF SEQUENCES: 26

CORRESPONDENCE ADDRESS: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION: TELEPHONE: (617)227-7400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 13-SEP-1996
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US 60/026,100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0,
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
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REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: DFN-020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                 COUNTRY:
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                                                                                                      Massachusetts
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                                                                                                                                                                                                                                                   6210921el Coxsackievirus and Adenovirus
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RESULT 8
US-08-928-383B-17
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Best Local :
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INFORMATION FOR SEQ ID NO:
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                                                                                            PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 60/026,100
FILING DATE: 13-SEP-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION MARKED: 116 (08 (02 2021)
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TELECOMMUNICATION INFORMATION:
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ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER:
                   NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: DEN-020
TELECOMMUNICATION INFORMATION:
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CORRESPONDENCE ADDRESS:
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APPLICANT: and Marshall S. Horwitz
TITLE OF INVENTION: CAR, A No. 6210921el Coxsackievirus and Adenovirus
TITLE OF INVENTION: Receptor
                                                                                                                                                                                                    APPLICATION NUMBER: FILING DATE: 12-SEF
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NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207.
DEN-020
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SOFTWARE: PatentIn Release #1.0, Version #1.25
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Similarity 92.5%;
98; Conservative ;
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(617)227-7400
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Pred. No. 1.4e-44;
3; Mismatches 5
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US-09-254-465A-26
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Matches
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LENGTH: 273
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Best Local Similarity
                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: US 60/066,364 PRIOR FILING DATE: 1997-11-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/254,465A CURRENT FILING DATE: 1999-03-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: COMPOUNDS, C
TITLE OF INVENTION: OF DISEASES
FILE REFERENCE: P1216R1(US)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: PCT/US98/19437 PRIOR FILING DATE: 1998-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: PCT/US98/24855
PRIOR FILING DATE: 1998-11-20
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                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                    Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201 NASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNR 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141 PSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSNSQKLPTLWLAEMTSPVISVK 200
   181
                               111 MSDLEGNTKSRVRLLVLVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNIL 170
                                                                125 APGV-GNKK--IQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLS-N 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26, Application US/09254465A
o. 6410708
                                                                                                 55 TERVVIWPFSNKNYIHGELY---KNRVSI-SNNAEQSDASITIDQLTMADNGTYECSVSL 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        83;
                                                                                                                                 67 VDQVIILYSGDK--IYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKK 124
                                                                                                                                                                                                  10 LCGVADLTRSLSITTPEOMIEKAKGETAYLPCRFTLGPEDQGPLDIEW---LLSPADNQK 66
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                                                                                                                                                         SQKLPTLWLAEMTS-PVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wood, William I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gurney, Austin L.
Napier, Mary A.
Tumas, Daniel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Goddard,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Genentech,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ashkenazi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fong, Sherman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95 amino acids
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                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1999-03-05
                                                                                                                                                                                                                                   25.9%; Score 351.5; DB 4; 34.1%; Pred. No. 5.8e-27; tive 53; Mismatches 96;
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Avi J.
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Pred. No. 1.1e-37;
8; Mismatches 4
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                                                                                                                                                                                                                                                                    DB 4;
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                                                                                                                                                                                                                                                                    Length 273;
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US-08-597-495B-22
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GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: 1
FILING DATE: 02-Feb-
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: Wordperfect CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Old, Lloyd J.;
APPLICANT: Simpson, Richar
APPLICANT: Catimel, B.; Ji
APPLICANT: Heath, Joan K.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: Hanson, No. 5712369man D. REGISTRATION NUMBER: 30,946 REFERENCE/DOCKET NUMBER: LUD 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 04-Aug
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OPERATING SYSTEM:
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                                                                                                                                        122 MSDLEGNTKSRVRLLVLVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNIL
                                                                                                                                                                                                            125 APGV-GNKK--IQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLS-N 180
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                                                                                                                                                                                                                                                                                    66 TERVVIWPFSNKNYIHGELY---KNRVSI-SNNAEQSDASITIDQLTMADNGTYECSVSL
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                                                                                                                                                                                                                                                                                                                                                           67 VDQVIILYSGDK--IYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKK 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10 LCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEW---LLSPADNQK 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99;
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T: 805 Third Avenue
New York City
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
NQEQP---LAQPASGQPVSLKNISTDTSGYYICTSSNEEGTQFCNITVAVRSPSMNVALY 238
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                                                            SOKLPTLWLAEMTS-PVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTI 239
                                                                                                                                                                                                                                                                                                                                                                                                                                   LCAVRVTVDAISVETPQDVLRASQGKSVTLPCTYHTSTSSREGL-IQWDKLLLT-----H
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US-09-068-051A-22
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                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 25.9%; Score 351.5; DB 4
Best Local Similarity 34.1%; Pred. No. 7.3e-27;
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (212) 318-3168
TELEFAX: (212) 752-5958
INFORMATION FOR SEQ ID NO: 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/597,495
FILING DATE: 02-Feb-1996
APPLICATION NUMBER: 08/511,876
FILING DATE: 04-Aug-1995
ATTORNBY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Hanson, No. 6291235man D. REGISTRATION NUMBER: 30,946
REFERENCE/DOCKET NUMBER: LUD 5316.
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION
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                                                                                                                                                                                                                                                                                                                                        10 LCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEW---LLSPADNQK 66
                                                                                                                                                                                                   TERVVIWPFSNKNYIHGELY---KNRVSI-SNNAEQSDASITIDQLTMADNGTYECSVSL 121
                                                                                                                MSDLEGNIKSRVRLLVLVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNIL 181
                                                                                                                                                                                                                                                   VDQVIILYSGDK--IYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKK 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/09/068,051A FILING DATE: 10-Dec-1998 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-I
SOFTWARE: Wordperfect
                           NQEQP---LAQPASGQPVSLKNISTDTSGYYICTSSNEEGTQFCNITVAVRSPSMNVALY 238
                                                                                                                                                            APGV-GNKK--IQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLS-N 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: New Yor
COUNTRY: USA
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                                                                       SQKLPTLWLAEMTS-PVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTI 239
                                                                                                                                                                                                                                                                                                 LCAVRVTVDAISVETPQDVLRASQGKSVTLPCTYHTSTSSREGL-IQWDKLLLT-----H 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 319 amino acids TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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New York City
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                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
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US-09-336-536-67
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Patent No. 6406884
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LENGTH: 319
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APPLICANT: MCKAY, C.
APPLICANT: Bossone, S.
APPLICANT: Bossone, S.
TITLE OF INVENTION: SECRETED PROTEINS AND
FILE REFERENCE: 7853-144
APPLICANT: Tumas, Daniel
APPLICANT: Wood, William I.
APPLICANTON: COMPOUNDS, COMPOSITIONS AND METHODS FOR THE TREATMENT
TITLE OF INVENTION: OF DISEASES CHARACTERIZED BY A33- RELATED ANTIGENS
FILE REFERENCE: P1216R1(US)
CURRENT APPLICATION NUMBER: US/09/254,465A
CURRENT FILING DATE: 1999-03-05
PRIOR APPLICATION NUMBER: PCT/US98/24855
PRIOR APPLICATION NUMBER: US 60/066,364
PRIOR FILING DATE: 1999-11-20
PRIOR FILING DATE: 1997-11-21
PRIOR APPLICATION NUMBER: US 60/078,936
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CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
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239 VGIAVGVVAALIIIGIIIYCC 259
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Similarity 34.1%;
89; Conservative 5
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Gurney, Austin L.
Napier, Mary A.
Tumas, Daniel
Wood, William I.
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Ashkenazi, Avi J.
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Pred. No. 7.3e-27;
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DB 4; 96;

Length 319; Indels

23;

Gaps

121

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SEQ ID NO 6
LENGTH: 319
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LENGTH: 270
                                     Matches
                                                   Query Match
Best Local Similarity
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Patent No. 6410708
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/254,465A
CURRENT FILING DATE: 1999-03-05
PRIOR APPLICATION NUMBER: PCT/US98/24855
                                                                                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: COMPOUNDS, CONTROL TITLE OF INVENTION: OF DISEASES CHARACTERIZED FILE REFERENCE: P1216R1(US)
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19 SLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEW---LLSPADNQKVDQVIILYS
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                                     86;
                                                                                                                                                                                                                                                                                                                                                                                                                Tumas, Danie Mood, William I.
Wood, William I.
COMPOUNDS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gurney, Austin L.
Napier, Mary A.
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                                   Conservative
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                                                   25.1%;
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                                   53;
                               Score 341.5; DB 4;
Pred. No. 5.6e-26;
3; Mismatches 90;
                                                                                                                                                                                                                                                                                                                                                                                                           COMPOSITIONS AND METHODS FOR THE TREATMENT S CHARACTERIZED BY A33- RELATED ANTIGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 319;
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                                                                  Length 270;
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                                                                                       ; SEQUENCE DESCRIPTION: SEQ ID NO: 32 US-09-068-051A-32
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US-09-068-051A-32
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Pacent No. 6291235
GENERAL INFORMATION:
APPLICANT: Old, Lloyd J.;
                         Query Match
Best Local :
    Matches
                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: 32 SEQUENCE CHARACTERISTICS:
                       Local
                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/597,495
FILING DATE: 02-Feb-1996
APPLICATION NUMBER: 08/511,876
FILING DATE: 04-Aug-1995
ATTORNABY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/068,051A
FILING DATE: 10-Dec-1998
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Fulbright & Jaworski LLP
STREET: 666 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Catimel, B.; Ji, Hong; Burgess, Anthony W.;
Heath, Joan K.; White, Sara J.; Johnstone,
TITLE OF INVENTION: Colon Cell And Colon Cancer Cell
                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  234 ALIIIGIIIYCC 245
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      133 --IQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLS-NSQKLPTLWL 189
  81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 SNKNYIHGELY---KNRVSI-SNNAEQSDASITIDQLTMADNGTYECSVSLMSDLEGNTK 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76 GDK--IYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKKAPGV-GNKK 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7 AISVETPODVLRASOGKSVTLPCTYHTSTSSREGL-IQWDKLLLT-----HTERVVIWPF
                       Similarity
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                                                                                                                                                        LENGTH: 318 amino acids TYPE: amino acid
                                                                                                                                                                                                                                                TELEPHONE: (212) 318-3168
TELEFAX: (212) 752-5958
                                                                                                                                                                                                                                                                                                                                     REGISTRATION NUMBER: 30,946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PS/2
OPERATING SYSTEM: PC-DOS
SOFTWARE: Wordperfect
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Diskette, 3.5 inch, 360 kb storage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: New York
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: New York City
                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                          NAME: Hanson; No. 6291235man D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 10103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: USA
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    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ud, Lloyd J.; Welt, Sydney; Ritter, Gerd; Simpson, Richard J.; Nice, Edouard; Moritz, R. L.; Catimel, B.; Ji, Hong; Burgess, Anthony W. Heath Jan.
  23.2%; Score 315.5; DB 4; 30.7%; Pred. No. 2.7e-23; tive 50; Mismatches 106;
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Gaps
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	237 GTIAGAVIGVLIAIVULIGHIIFCC 260	235	8 8
181 NOORPLTOPVSGEPLLLKNISTETAGYYICTSSNDVGIESCNITVAPRPPSMNI 234	NOORPLTOPVSGEPLLLKNISTE	181	Дb
181 SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRA 236	SQKLPTLWLAEMTSPVISVKNASTE	181	δ
121 MSDQDVNAKSKVRLLVLVPPSKPDCSIQGEMVIGNNIQLTCHSAEGSPSPQYSWKSYNAQ 180	MSDQDVNAKSRVRLLVLVPPSKPDCSIQG	121	В
125 APGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKL-SN 180	APGVGNKKIQLTVLLKPSGTRCYVDG	125	δ
65 TERVYTWNFVTKKYIYGNRYENRVR-VSNDAELSNASITIDQLTMDDNGTYECSVSL 120	TERVVTWNFVTKKYIYGNRYENRVR-	65	DЪ
67 VDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKK 124	VDQVIILYSGDKIYDDYYQDLKGRVHF	67	γQ
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Database
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Perfect score:
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1359
                                 10:
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12:
13:
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                        //gn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep:*
//gn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
//gn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep:*
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//gn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
//gn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
//gn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
//gn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*
//gn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep:*
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//gn2_6/ptodata/1/pubpaa/US00_NEW_PUB.pep:*
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Copyright (c) 1993 - 2003 Compugen Ltd.
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(without alignments)
1321:111 Million cell updates/sec
_6/ptodata/1/pubpaa/US60_PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1238	1353	1359	Score
91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	99.6	100.0	Query Match
352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	365	261	Length
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US-10-227-884-216	US-09-997-666-505	US-09-997-428-505	US-09-990-562-505	US-09-990-438-505	US-09-993-667-505	US-09-997-653-505	US-09-989-734-505	US-09-993-687-505	US-09-991-181-505	US-09-990-436-505	US-09-989-730-505	US-10-053-107-10	US-09-990-444-505	US-09-989-735-505	US-09-989-293A-505	US-09-992-598-505	US-09-899-634A-4	US-09-899-634A-2	ID
216,	Sequence 505,	Sequence 505,					Sequence 505,		Sequence 505,		ς.				Sequence 505,	Sequence 505,	Sequence 4,	Sequence 2,	Description
App	App	App	App	App	, App	App	App	App	App	App	App	App1	App	App	App	App	Appli	Appli	

1238 91.1 35.2 9 US-09-990-711-505 1238 91.1 35.2 9 US-09-980-720-163 1238 91.1 35.2 9 US-09-980-726-505 1238 91.1 35.2 9 US-09-998-156-505 1238 91.1 35.2 9 US-09-998-156-31-216 1238 91.1 35.2 9 US-10-218-631-216 1238 91.1 35.2 9 US-10-230-318-216 1238 91.1 35.2 9 US-09-991-172-505 1238 91.1 35.2 9 US-09-997-514-505 1238 91.1 35.2 9 US-09-997-514-505 1238 91.1 35.2 9 US-09-997-726-505 1238 91.1 35.2 9 US-09-997-726-505 1238 91.1 35.2 9 US-09-997-601-505 1238 91.1 35.2 9 US-09-997-440-505 1238 91.1 35.2 9 US-09-997-440-505 1238 91.1 35.2 9 US-09-997-618-505	45	44	43	42	41	40	39	38	37	36	ω 5	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20
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	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1
	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352
US-10-239-11-505 US-10-230-163-216 US-09-989-726-505 US-09-981-157-505 US-10-218-631-216 US-10-218-631-216 US-09-991-177-505 US-09-991-177-505 US-09-997-514-505 US-09-997-514-505 US-09-997-514-505 US-09-997-59-505 US-09-990-443-505 US-09-990-759-505 US-09-990-759-505 US-09-990-744-505 US-09-997-601-505 US-09-997-608-505	9	9	9	9	9	9	9	9	9	9	9	Q	9	9	9	9	9	9	9	9	9	9	ø	9	Q	ď
	-09-993-748-	-09-993-469-	-10-213	-09-997	-09-997	-09-997	-09-997	-09-991	US-09-990-440-505	US-09-989-729A-505	US-09-997-601-505	US-09-997-559-505	US-09-990-726-505	US-09-990-443-505	US-10-230-414-216	US-09-997-573-505	-09-99	-09-99	-09-99	-10-23	-10-218	-09-998	-09-990	-09-989-726-5	-10-230-163-2	G-TT/-066-60-
										505,																505,
505, App 505, App 505, App 506, App 507, App 508, App	App	App	Appl	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	App	dďv

ALIGNMENTS

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; Sequence 2, Application US/09899634A
; Patent No. US20020059654A1
; GENERAL INFORMATION:
; APPLICANT: Thomas Buehler, Reto Andreas Gadient, Reinhard Korn, Rao Movva
; TITLE OF INVENTION: pCAR and its uses
; FILE REFERENCE: 4-31499A
; CURRENT APPLICATION NUMBER: US/09/899,634A
; CURRENT FILING DATE: 2001-07-05
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
; SEQ ID NO 2
; LENGTH: 261
; TYPE: PRT
; ORGANISM: porcine
US-09-899-634A-2
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US-09-899-634A-2
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241
                    241 GAVIGVLLALVLIGLIIFCCR 261
                                                                                                                                                      121
                                                                          181
                                                                                                181 SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA 240
                                                                                                                                                                        121 KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSBEIGNDFKLKCEPKEGSLPLLYEWQKLSN 180
                                                                                                                                                                                                                              1 MALLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS
                                                                        SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA
                                                                                                                                                    KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSBEIGNDFKLKCEPKEGSLPLLYEWQKLSN 180
GAVIGVILALVLIGLIIFCCR 261
                                                                                                                                                                                                                                                                                                            MALLLCFVLLCGVADLTRSLSITTPEQMIEXAKGETAYLPCRFTLGPEDQGPLDIEWLLS
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; SOFTWARE: PATENTIN VETS
; SEQ ID NO 4
; LENGTH: 365
; TYPE: PAT
; ORGANIZM: porcine
US-09-899-634A-4
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Best Local Sim:
Matches 259;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 4, Application US, Patent No. US20020059654A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                         Sequence 505, Application US/09992598 Patent No. US20020160384A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Thomas Buehler, Reto Andreas Gadient, Reinhard Korn, Rao Movva TITLE OF INVENTION: DCAR and its uses FILE REFERENCE: 4-31499A CURRENT APPLICATION NUMBER: US/09/899,634A CURRENT FILING DATE: 2001-07-05
                                                                                                                                                                                                                                                                                           APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
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Watanabe, Colin K. Williams, P. Mickey Wood, William I.
                                                     Roy, Margaret Ann
Stewart, Timothy A.
                                                                                                                               Gurney, Austin L.
Kljavin, Ivar J.
                                                                                                                                                         Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
                                                                                                                                                                                                        Gerritsen, Mary E.
                                                                                                                                                                                                                    Gerber, Hanspeter
                                                                                                                                                                                                                                  Fong, Sherman
                                                                                                                                                                                                                                                 Ferrara, Napoleone
                                                                                                                                                                                                                                                                  Eaton, Dan L.
                                                                                    Paoni
                                                                                                              Napier, Mary A.
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PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/065186
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FILING DATE: 1998-04-28
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FILING DATE: 1997-11-13
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OR APPLICATION NUMBER: 60/090695
OR APPLICATION NUMBER: 60/090696
OR APPLICATION NUMBER: 60/090696
OR FILING DATE: 1998-06-26
OR FILING DATE: 1998-06-26
OR APPLICATION NUMBER: 60/090863
OR FILING DATE: 1998-06-26
OR APPLICATION NUMBER: 60/091360
OR FILING DATE: 1998-07-01
OR APPLICATION NUMBER: 60/091478
OR FILING DATE: 1998-07-02
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OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091519
OR FILING DATE: 1998-07-02
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OR APPLICATION NUMBER: 60/092182
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/092182
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GAIIGTLLALALIGLIIFCCR
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Pred. No. 2.3e-80;
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US-09-989-293A-505

US-09-989-293A-505

Sequence 505, Application US/09989293A

Patent No. US20020177164A1

Patent No. US20020177164A1

PAPLICANT: Abkenazi, Avi J.

APPLICANT: Baker, Kevin P.

APPLICANT: Botstein, David

APPLICANT: Botstein, David

APPLICANT: Betonyers, Luc

APPLICANT: Betonyers, Luc

APPLICANT: Ferrara, Napoleone

APPLICANT: Ferrara, Napoleone

APPLICANT: Gerber, Hanspeter

APPLICANT: Goddard, Audrey

APPLICANT: Goddwski, Paul J.

APPLICANT: Godowski, Paul J.

APPLICANT: Gurney, Austin L.

APPLICANT: Napier, Mary A.

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CURRENT APPLICATION NUMBER: US/09/989,293A
CURRENT FILING DATE: 2001-11-20
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-10-17
PRIOR PPLICATION NUMBER: 60/065186
PRIOR APPLICATION NUMBER: 60/065181
PRIOR PRILING DATE: 1997-11-12
PRIOR APPLICATION NUMBER: 60/065311
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PRIOR FILING DATE: 1997-11-13
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TITLE OF INVENTION: Secreted and Transmembrane Polypeptides
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730P1C66
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OR APPLICATION NUMBER: 60/089690
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OR APPLICATION NUMBER: 60/089653
OR FILING DATE: 1998-06-18
OR PETLING DATE: 1998-06-18
OR PETLIATION NUMBER: 60/089901
OR FILING DATE: 1998-06-19
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OR FILING DATE: 1998-06-22
OR APPLICATION NUMBER: 60/09044
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R FILING DATE: 1998-06-R APPLICATION NUMBER: 6 R FILING DATE: 1998-06-R APPLICATION NUMBER: 6 FILING DATE: 1998-06-11 APPLICATION NUMBER: 60/089105 FILING DATE: 1998-06-11
APPLICATION NUMBER: 60/088861
FILING DATE: 1998-06-11
APPLICATION NUMBER: 60/088876 FILING DATE: 1998-06-10 APPLICATION NUMBER: 60/088826 APPLICATION NUMBER: 60/088858 FILING DATE: 1998-06-1 1998-06-1 60/089440 60/088824 60/088810

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Best Local S
Matches 233
                                                    Sequence 505, Application US/0988735
Publication No. US20020193299A1
GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
             APPLICANT:
APPLICANT:
APPLICANT:
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FILING DATE: 1998-06-26
APPLICATION NUMBER: 60/091360
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FILING DATE: 1998-06-25
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FILING DATE: 1998-06-26
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FILING DATE: 1998-06-25
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APPLICATION I
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                                                                                                                                                                                                                                                                                                                                                                                                          MALLLCFVLLCGVVDFARSLSITTPEEMIEKAKGETAYLPCKFTLSPEDQGPLDIEWLIS
                                                                                                                                                                                                                                     SQKMPTSWLAEMTSSVISVKNASSEYSGTYSCTVRNRVGSDQCLLRLNVVPPSNKAGLIA
             Desnoyers, Luc
Eaton, Dan L.
Ferrara, Napoleone
                                       Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
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CURRENT FILING DATE: 2001-11-19
CURRENT FILING DATE: 2001-11-19
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-11-12
PRIOR APPLICATION NUMBER: 60/065186
PRIOR FILING DATE: 1997-11-12
PRIOR APPLICATION NUMBER: 60/065311
PRIOR APPLICATION NUMBER: 60/066770
PRIOR FILING DATE: 1997-11-24
PRIOR PILING DATE: 1997-11-24
PRIOR APPLICATION NUMBER: 60/075945
PRIOR APPLICATION NUMBER: 60/078910
PRIOR APPLICATION NUMBER: 60/078910
PRIOR APPLICATION NUMBER: 60/08332
PRIOR FILING DATE: 1998-03-20
PRIOR FILING DATE: 1998-04-28
PRIOR APPLICATION NUMBER: 60/08332
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CURRENT APPLICATION NUMBER: US/09/989,735
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OR APPLICATION NUMBER: 60/075945
OR FILING DATE: 1998-02-25
OR APPLICATION NUMBER: 60/078910
OR APPLICATION NUMBER: 60/083322
OR FILING DATE: 1998-05-20
OR APPLICATION NUMBER: 60/08760
OR APPLICATION NUMBER: 60/08760
OR FILING DATE: 1998-05-28
FILING DATE: 1998-06-02
OR APPLICATION NUMBER: 60/08760
OR APPLICATION NUMBER: 60/08760
OR FILING DATE: 1998-06-02
OR APPLICATION NUMBER: 60/087759
OR FILING DATE: 1998-06-02
OR APPLICATION NUMBER: 60/088026
OR APPLICATION NUMBER: 60/088027
OR FILING DATE: 1998-06-04
OR APPLICATION NUMBER: 60/088026
OR FILING DATE: 1998-06-04
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OR APPLICATION NUMBER: 60/088033
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OR APPLICATION NUMBER: 60/088202
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INVENTION: Acids Encoding the
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Godowski, Paul
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Gerber, Hanspeter
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Stewart, Timothy
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Napier, Mary A.
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FILING DATE: 1998-00 APPLICATION NUMBER:

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60/088858

APPLICATION NUMBER:

APPLICATION I

FILING DATE: 1998-00 APPLICATION NUMBER:

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OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091978
OR APPLICATION NUMBER: 60/091982
OR APPLICATION NUMBER: 60/091982
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/092182
OR FILING DATE: 1998-07-09
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OR FILING DATE: 1998-06-25
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OR APPLICATION NUMBER: 60/090695
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OR APPLICATION NUMBER: 60/090862
OR APPLICATION NUMBER: 60/090863
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OR APPLICATION NUMBER: 60/091360
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OR APPLICATION NUMBER: 60/091360
OR APPLICATION NUMBER: 60/091478
OR APPLICATION NUMBER: 60/091478
OR APPLICATION NUMBER: 60/091544
OR APPLICATION NUMBER: 60/091544
OR FILING DATE: 1998-07-01
OR APPLICATION NUMBER: 60/091544
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/09154
OR APPLICATION NUMBER: 60/09154
OR APPLICATION NUMBER: 60/09154
OR APPLICATION NUMBER: 60/09159
OR APPLICATION NUMBER: 60/09159
OR APPLICATION NUMBER: 60/091626
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091626
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APPLICATION NUMBER: 60/090678
FILING DATE: 1998-06-25
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APPLICATION NUMBER: 60/090676
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APPLICATION NUMBER: 60/090472
FILING DATE: 1998-06-24
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                                                                     SQKMPTSWLAEMTSSVISVKNASSEYSGTYSCTVRNRVGSDQCLLRLNVVPPSNKAGLIA
                                                                                         SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA
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Pred. No. 2.3e-80;
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1998-06-17

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60/089514 60/089512 60/089440 60/089105 60/088876 60/088861

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60/089948 60/089947 60/089908 60/089907 60/089801 60/089653 60/089600

APPLICATION FILING DATE: APPLICATION FILING DATE:

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CURRENT APPLICATION NUMBER: US/09/990,444
CURRENT FILING DATE: 2001-11-14
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APPLICANT:
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APPLICANT: Baker,Kevin P.
APPLICANT: Botstein,David
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Gerritsen, Mary E.
Goddard, Audrey
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Kljavin, Ivar J.
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Grimaldi, J.Christopher
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APPLICATION NUMBER: 60/088326
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PRIOR APPLICATION NUMBER: 60/099601
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PRIOR FILING DATE: 1997-06-16
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TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: p2730p1C69
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Zhang, Zemin
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OR FILING DATE: 1998-07-01
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OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091626
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091633
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091978
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/091982
OR APPLICATION NUMBER: 60/091982
OR APPLICATION NUMBER: 60/092182
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OR FILING DATE: 1998-07-09
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RESULT 9 US-09-990-436-505 GENERAL INFO
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APPLICANT: Wood, William I.

APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane
TITLE OF INVENTION: Acids Encoding the Same

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FILE REFERENCE: P2730P1C14
CURRENT APPLICATION NUMBER

NUMBER: US/09/990,436

CURRENT FILING DATE: 2001-11-14
PRIOR APPLICATION NUMBER: 60/049787
PRIOR TILING DATE: 1997-06-16
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-11-12
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PRIOR FILING DATE: 1997-11-12
PRIOR PRIOR DATE: 1997-11-13
PRIOR PRIOR DATE: 1997-11-24
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PRIOR FILING DATE: 1998-02-25
PRIOR PRIOR PRICING DATE: 1998-02-25
PRIOR PRICING DATE: 1998-03-20
PRIOR PRICING DATE: 1998-03-20
PRIOR APPLICATION NUMBER: 60/078910
PRIOR APPLICATION NUMBER: 60/08332
PRIOR APPLICATION NUMBER: 60/08332
PRIOR PILING DATE: 1998-04-28
PRIOR APPLICATION NUMBER: 60/08700
PRIOR APPLICATION NUMBER: 60/08700
PRIOR APPLICATION NUMBER: 60/087607
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APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
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OR APPLICATION NUMBER: 60/991626
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091633
OR FILING DATE: 1998-07-02
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FILING DATE: 1998-07-01
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Gerritsen, Mary E.
Goddard, Andrey
Goddowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Kljavin, Ivar J.
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Roy, Margaret Ann
Stewart, Timothy A.
                             Paoni, Nicholas F
                                                Pan, James
                                                           Napier, Mary A.
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APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K.
APPLICANT: Williams, P. Mickey
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William I.
APPLICANT: Wood, William I.
APPLICANT: Chang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Pol
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730P1C53
CURRENT APPLICATION NUMBER: US/09/991,181
CURRENT FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: 60/049787
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/06250
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PRIOR FILING DATE: 1998-03-20
PRIOR APPLICATION NUMBER: 60/083322
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PRIOR APPLICATION NUMBER: 60/075945
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PRIOR APPLICATION NUMBER: 60/065311
PRIOR FILING DATE: 1997-11-13
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OR APPLICATION NUMBER: 60/088033
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APPLICATION NUMBER: 60/087759
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APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
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Gerber, Hanspeter
Gerritsen, Mary E
Goddard, Audrey
                                                                        Desnoyers, Luc
Eaton, Dan L.
                                                                                                     Baker, Kevin P.
Botstein, David
                                           Fong, Sherman
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TITLE OF INVENTION: Acids Encoding the Same
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Wood, William I.
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Williams, P. Mickey
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Roy, Margaret Ann
Stewart, Timothy
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Sequence 505, Application US/0989734
Publication No. US20030003531A1
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APPLICANT: Ashkenazi, Avi J.
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APPLICANT: MOUNT, MILLIANIA, APPLICANT: APPLICANT: ACADAM, Zenin
TITLE OF INVENTION: Secreted and Transmembrane Pol
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730P1C64
CURRENT APPLICATION NUMBER: US/09/989,734
CURRENT APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR FILING DATE: 1997-10-17
PRIOR PPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/065186
PRIOR APPLICATION NUMBER: 60/065311
PRIOR APPLICATION NUMBER: 60/065311
PRIOR FILING DATE: 1997-11-13
PRIOR APPLICATION NUMBER: 60/06670
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PRIOR APPLICATION NUMBER: 60/084600
PRIOR FILING DATE: 1998-03-20
PRIOR APPLICATION NUMBER: 60/084600
PRIOR FILING DATE: 1998-05-09
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OR FILING DATE: 1998-06-04
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APPLICANT

Paoni,Nicholas Pan, James Napier, Mary A.

Margaret Ann Mart, Timothy A. Daniel

Watanabe, Colin Williams, P. Mic Wood, William I.

P. Mickey

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APPLICANT:

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Grimaldi, J.Christopher Gurney, Austin L. Kljavin, Ivar J.

Goddard, Audrey Godowski, Paul Gerritsen, Mary Fong, Sherman Gerber, Hanspeter Ferrara, Napoleone

4 H APPLICANT:

Baker, Kevin P. Botstein, David Desnoyers, Luc

R FILING DATE: R APPLICATION N R FILING DATE:

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APPLICATION NUMBER: 60/089440

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APPLICATION NUMBER: 60/087759
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APPLICATION NUMBER: 60/066770
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Williams, P. Mickey
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                                                                                                                                  Score 1238; DB 9; Pred. No. 2.3e-80;
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APPLICANT: Wood, William I.
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TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P7730PLC4
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PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
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PRIOR APPLICATION NUMBER: 60/062250
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OR APPLICATION NUMBER: 60/087106
OR FILING DATE: 1998-05-28
OR APPLICATION NUMBER: 60/087607
OR FILING DATE: 1998-06-02
OR APPLICATION NUMBER: 60/087609
OR APPLICATION NUMBER: 60/087759
OR APPLICATION NUMBER: 60/087759
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DR APPLICATION NUMBER: 60/078910.

DR FILING DATE: 1998-03-20

DR APPLICATION NUMBER: 60/083322

DR FILING DATE: 1998-04-28

DR APPLICATION NUMBER: 60/084600
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APPLICATION NUMBER: 60/075945
FILING DATE APPLICATION
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Williams, P. Mickey
Wood, William I.
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Godowski, Paul
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Query Match 91.1%; Score 1238; DB 9; Length 352; Best Local Similarity 89.3%; Pred. No. 2.3e-80; Matches 233; Conservative 13; Mismatches 15; Indels 0; Gaps

INVENTION Secret INVENTION: Secret INVENTION: Secret INVENTION: Acids RENCE: P2730P1C3 PPLICATION NUMBER: 2001 LICATION NUMBER: 1997-01 LICATION NUMBER: 1997-11 LICATION NUMBER: 1998-0: 1998-0: 1998-0: 1998-0: 1998-0: 1998-0: 1998-0: 10G DATE: 1998-0: 10G DA	US-09-990-438-505 Sequence 505, Application US/09990438 Publication No. US20030027754A1 GENERAL INFORMATION: APPLICANT: Baker, Kevin P. APPLICANT: Baker, Kevin P. APPLICANT: Backer, Luc APPLICANT: Bacon, Dan L. APPLICANT: Eacon, Dan L. APPLICANT: Ferrara, Napoleone APPLICANT: Ferrara, Napoleone APPLICANT: Gerber, Hanspeter APPLICANT: Gerber, Hanspeter APPLICANT: Geodowski, Paul J. APPLICANT: Godowski, Paul J. APPLICANT: Majaer, Austin L. APPLICANT: Napier, Austin L. APPLICANT: Napier, Mary A. APPLICANT: Napier, Mary A. APPLICANT: Roy, Margaret Ann APPLICANT: Stewart, Timothy A. APPLICANT: Stewart, Timothy A. APPLICANT: Waltiams, P. Mickey APPLICANT: Waltiams, P. Mickey APPLICANT: Williams, P. Mickey	Qy
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                                                                                                                                      PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
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89.3%;
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Pred. No. 2.3e-80;
3; Mismatches 15
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ALIGNMENTS

Ş A;Molecule type: mRNA
A;Residues: 1-365 <THO>
A;Cross-references: GB:AY033651
C;Comment: This protein serves as the primary adenoviral attachment 밁 뮹 á 요, Ś A; Reference number: JC7780 A; Contents: Liver S 밁 A; Accession: Matches 242; Query Match Local 241 241 61 PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC 1 MALLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS Similarity GAVIGILLALVLIALIVECC GAVIGVLLALVLIGLIIFCC SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA KVKKAPGVGNKKIQLTVLVKPSGIRCYVDGSEEIGNDFKLKCEPKEGSLPLRYEWQKLSD KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC MELLLRFLLLCGVADFTRGLSITTPEQMIEXAKGETAYLPCKFTLGPEDQGPLDIEWLLS Conservative 93.5%; Score 1270; Db . Pred. No. 3e-1 7; Mismatches 260 2 11; Indels Length 02-Apr-2002 0 and site adenovirus recept on bovine 180 180 240 120 60 120 60 0 cell

junctional adhesion molecule precursor - human N;Alternate names: F11 platelet antigen; platelet c;Species: Homo sapiens (man) C;Date: 27-Oct-1995 #sequence_revision 01-Feb-2002 C;Accession: A59406; S56749 R;Ozaki, H.; Ishii, K.; Horiuchi, H.; Arai, H.; Kav J. Immunol. 163, 553-557, 1999

A; Title: Cutting edge:

combined treatment of TNF-alpha and IFN-gamma causes redistribut

H.; Arai, H.; Kawamoto, T.; Okawa,

K.; Iwamatsu,

adhesion molecule PAM-1; platelet

F11

#text_change 01-Feb-2002

RESULT S56749

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Biochem. J. 310, 155-102, 1770
A;Title: Mechanisms of platelet activation
A;Reference number: S56749; MUID:95374438;
A;Accession: S56749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: protein
A;Residues: 28-49, X',51-53;62-73,'E',75-103;123,'F',125-130;'FDKDXTIYLNXY';'LT',206,'X
A;Note: the order of the peptides other than the amino terminus was not determined
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T42633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: GB:AAD42050; NID:g5326797; R;Naik, U.P.; Ehrlich, Y.H.; Kornecki, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Reference number:
A;Accession: A59406
A;Status: prelimina
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A;Status: preliminary; translated
                                                                                                                                                                                                                                                                                                                          R;Yajima, H.; Ohtsuka, H.; Kawamura,
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Matches
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;Experimental source: breast muscle
                                                                                                                                                                                                                                                                                            iochem. Biophys.
;Title: A 11.5-kl
                                                                                                                                                                                                                                                                                                                                        Species: Gallus gallus (chicken); Date: 11-Jan-2000; Date: 11-Jan-2000 #sequence_revision 11-Jan-2000; Accession: T42633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;Keywords: glycoprotein; phosphoprotein; platelet aggregation; p;1-25/Domain: signal sequence #status predicted <SIG>;26-299/Product: junctional adhesion molecule #status predicted
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.5-kb 5'-terminal cDNA sequence of cl
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               KVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKKA 125
                                               GFQECFAKLTVLEPAVIVEKPGPVKVTAGDSCTLECTVDGTPE----LTARW-----
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hemicentin precursor - Caenorhabditis
C;Species: Caenorhabditis elegans
C;Date: 11-Jan-2000 #sequence revision
C;Accession: T43290; T20993; T24734
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Best Local (
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A;Map position: X
A;Mat position: X
A;Introns: 85/1; 120/1; 334/3; 370/1; 477/2; 606/3; 664/1; 935/3; 977/1; 1051/3; 1184/3
A;Introns: 85/1; 120/1; 334/3; 370/1; 477/2; 606/3; 664/1; 935/3; 977/1; 1051/3; 3033/
; 2512/2; 2593/3; 2699/3; 2759/1; 2852/1; 2889/3; 2913/3; 2941/1; 2967/3; 2991/3; 3033/
1; 4225/1; 4361/1; 4408/1; 4456/1; 4498/1; 4647/3; 4838/1; 4879/1; 4941/1; 5011/1; 5077
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,Status: preliminary; translated A,Roolecule type: DNA A,Roolecule type: DNA A,Residues: 1-5175 <WIZ-A,Cross-references: EMBL:Z47070; PA,Experimental source: clone T09B9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          submitted to the EMBL Data A; Reference number: Z19929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Molecule type: DNA
A;Residues: 1-5175 <WIL>
A;Cross-references: EMBL
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A;Accession: T20992
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                                                                                                                                                                                                                                                                                                                                                                                                                                              GVADLTRSLSITTPEQMIE-----KAKGETAYLPCRFTLGPEDQGPLDIEWLLSPADNQ
                                                                                              PVPQMRWTLNGTALTHSTPGITVASDSTFIQINNVSLSDKGVYTCYAENVAGSDNLMYNV
                                                                                                                                                                                                                                               KKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSNSQ 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VGKSSCTASLQVSDRIMPPSFTRKLKETYGQLGSSAVLECK-VYGSPPILVSWFHDGQEI
                                                DVV--PPSNRAGT---
                                                                                                                                                                                                                                                                                                                                             KVDQVIILYSGDKIYDD---YYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKV
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DVVQAPVISNGGTKQVIEGELAVIECLV
                                                                                                                                                 KLPTL-WLAEMT----
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Pred. No. 0.0022;
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revision

11-Jan-2000

#text_change 18-Feb-2000

elegans

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B-lymphocyte activation antigen 7 precursor - mouse N;Alternate names: MB7-2 C;Species: Mus musculus (house mouse) C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change C;Accession: 149503; S17291; T49521 R;Selvakumar, A.; White, P.C.; Dupont, B. Immunogenetics 38, 292-295, 1993 A;Title: Genomic organization of the murine B-lymphocyte activat A;Reference number: 149503; MUID:93307789; PMID:7686531 A;Accession: I49503 A;Status: preliminary; translated from GB/EMBL/DDBJ
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A;Cross-ref
R;Sulston,
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I49503
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A;Introns: 85/1; 120/1; 334/3; 370/1; 477/2; 606/3; 664/1; 935/3; 977/1; 1051/3; 1184/3; A;Introns: 85/1; 120/1; 334/3; 370/1; 477/2; 606/3; 664/1; 935/3; 977/1; 1051/3; 1184/3; 2512/2; 2593/3; 2699/3; 2759/1; 2852/1; 2889/3; 2913/3; 2941/1; 2967/3; 2991/3; 3033/1; 4255/1; 4361/1; 4408/1; 4456/1; 4498/1; 4647/3; 4838/1; 4902/1; 4964/1; 5034/1; 5100
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A; Residues: 1-5198 <
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A; Accession:
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;Cross-references: EMBL:Z47068; PIDN:CAA87336.1; GSPDB:GN00028; CESP:F15G9
;Experimental source: clone F15G9
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KVDQVIILYSGDKIYDD---YYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKV 122
DNA
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Pred. No. 0.0022;
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elastic titin - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C;Accession: I38346
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A; Residues: 1-143, 238-274, 'R', 279-309 <RE2>
A; Cross-references: GB:D16220; NID:g505118;
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A;Title: Identification of an alternatively spliced form of the murine homologue A;Reference number: 149521; MUID:94220123; PMID:7513163
                                                                                                                                                                A; Molecule type: mRNA
A; Residues: 1-7962 <RES>
A; Cross-references: EMBL
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                                                                                                                                                                                                                                                                                                                 R;Labeit, S.; Kolmerer, B.
Science 270, 293-296, 1995
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C; Superfamily: B-lymphocyte restricted antigen
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A;Gene: B7
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A; Residues: 1-274, 'R', 279-309
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J. Exp. Med
                                                                                                                                                                                                                                A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                      A; Accession: I38346
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                                                                                                       ;Gene: GDB:TTN
;Cross-references:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Residues: 1-309 <RES>
                                           Query Match
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Exp. Med. 174, 625-631, 1991
                                                                                     position:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          71 -- OKHDKVVLSVIAGKLKVWPEY----KNRTLYDNTTY-----SLIILGLVLSDRGTYSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63 DNOKVDOVII-LYSGD-KIYDDYYODLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYOC
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ilarity 23.9%;
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                                                                                                         OMIM: 188840
Score 151; DB
Pred. No. 0.01
%1; Mismatches
                                                                                                                                                                    NID:g1017426;
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Pred. No. 0.00017;
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                     DB 2
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Best Loc Matches

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12;

Local

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RESULT 9
T17346
T17346
hypothetical protein DKFZp58601624.1 - human (fragment)
C;Species: Homo sapiens (man)
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
C;Accession: T17346
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J. Biol. Chem. 265, 14481-14486, 1990
A;Title: Cloning and analysis of cDNA
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;Accession: T17346
;Duesterhoeft, A.; Lauber, J.; Mewes, H.W.;
ubmitted to the Protein Sequence Database, 9
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;Cross-references: GB:M35551; NID:g1763685; PIDN:AAB39766.1; PID:g162773
;Keywords: transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;Species: Bos primigenius taurus (cattle);Date: 30-Apr-1991 #sequence_revision 30-
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Best Local
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67; Conserv
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                                                                                                                                                                                                                                                                                                                                      FFRQDENYEEAIVHLKV--AALGSDPHISMKVQESGEIQLECTSVGWYPEPQVQWRTHRG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLIFILLQLPKLDSAPFDVIGPQEPILAVVGEDAELPCRLSPNVSAKG-MELRWFREKVS 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWL---LS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GMQECFATLSVLEPA 4251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SVVWFKDKGEIVRESDNIWISYSENIATLQFSR-----VEPANA-----GKYTCQIKNDA 4236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GSASSSTSLKVKEPPIFRKKPHPIETLKGADVHLEC-----ELQGTPPFHVSW-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GVADLTRSLSITTP-----EQMIEKAKGETAYLPCRFTLGPEDQG--PLDIEWLLSPAD
                                                                                                                                                                                         ----DVEVSIPASFFPRLTPWMVAVAVILVVLGLLTIGSIFFTWR
                                                                                                                                                                                                                           CLLRLDV----PSNRAGTIAGAVIGVLLALVLIGLIIFCCR
                                                                                                                                                                                                                                                                                                  SLPLLYEWQKLSNSQKLPTLWLAEMTSPVI----SVKNASTEYSGTYSCTVKN-RVGSDQ 222
                                                                                                                                                                                                                                                                                                                                                                                                                                           PADNOKVDOVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GSDQCLLRLDVVPPS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                             ----VFVSREGQEQEEEMAEYRGRVSLVEDHIAEGSVAVRIQEVKASDDGEYRC 124
                                                                                                                                                                                                                                                                -EFPSMSESRNPDEEGLFTVRASVIIRDSSMKNV-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10.6%;
23.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 144; DB 2;
Pred. No. 0.0019;
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       ; Gassenhuber, ,
September 1999
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F;118-141/Domain: leucine-rich alpha-2-glycoprotein repeat homology LRR3
F;142-165/Domain: leucine-rich alpha-2-glycoprotein repeat homology LRR3
F;142-165/Domain: leucine-rich alpha-2-glycoprotein repeat homology LRR4
F;166-189/Domain: leucine-rich alpha-2-glycoprotein repeat homology LRR5
F;191-211/Domain: leucine-rich alpha-2-glycoprotein repeat homology LRR6
F;214-237/Domain: leucine-rich alpha-2-glycoprotein repeat homology LRR7
F;238-261/Domain: leucine-rich alpha-2-glycoprotein repeat homology LRR8
F;286-309/Domain: leucine-rich alpha-2-glycoprotein repeat homology LRR10
F;310-333/Domain: leucine-rich alpha-2-glycoprotein repeat homology LR11
F;338-381/Domain: leucine-rich alpha-2-glycoprotein repeat homology LR12
F;385-408/Domain: leucine-rich alpha-2-glycoprotein repeat homology LR13
F;409-432/Domain: leucine-rich alpha-2-glycoprotein repeat homology LR13
F;409-432/Domain: leucine-rich alpha-2-glycoprotein repeat homology LR13
F;409-432/Domain: leucine-rich alpha-2-glycoprotein repeat homology LR14
F;409-432/Domain: leucine-rich alpha-2-glycoprotein repeat homology LR13
F;409-432/Domain: leucine-rich alpha-2-glycoprotein repeat homology LR14
F;409-432/Domain: leucine-rich alpha-2-glycoprotein repeat homology LR15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    glial cell membrane glycoprotein LIG-1 precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 11-Apr-1997 #sequence_revision 11-Apr-1997 #text_change 05-Nov-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Residues: 1-483 <DUE>
A;Cross-references: EMBL:AL117666
A;Experimental source: adult uterus; clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             J. Biol. Chem. 271, 22522-22527, 1996
A;Title: cDNA cloning of a novel membrane glycoprotein that A;Reference number: A58532; MUID:96394313; PMID:8798419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F;36-61/Domain: proteoglycan amino-terminal homology <PAH>
F;71-94/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR1>
F;95-117/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Cross-references: GB:D78572; NID:g1545806; PIDN:BAA11416.1; PID:g1545807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Accession: A58532
A;Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Residues: 1-1091 <SUZ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Molecule type: mRNA
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;Accession: A58532
;Suzuki, Y.; Sato, N.; Tohyama, M.; Wanaka, A.; Takagi,
;Suzuki, Y.; Sato, 271, 22522-22527, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;Superfamily: leucine-rich alpha-2-glycoprotein repeat
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41;
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                                                       94 TSNDLKSGDASINVTNLQLSDIGTYQCKVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEE 153
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-DVFF-ITDVKIDDMGVYSCTAQNSAGSVSANATLTVLETPSLAVPLEDRVVT
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                                                                                                                                                                                                                                                  37;
                                                                                                                                                                                                                                                  Score 139.5;
Pred. No. 0.01
37; Mismatches
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Pred. No. 0.0021;
1; Mismatches 80
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                                                                                                                                                                                                                                                                                   0.01;
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C;Date: 13-um.
C;Accession: JC4024
R;Lopez, M.; Eberle, F.;
Cone 155, 261-265, 1995
RESULT 12
$18252
heparan sulfate proteoglycan - mouse
N;Alternate names: perlecan
C;Species: Mus musculus (house mouse)
C;Date: 13-Jan-1995 #sequence_revisio
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F;31-518/Product: poliovirus receptor-related protein #status predicted
F;356-379/Domain: transmembrane #status predicted <TMM>
F;366,72,82,139,287,308,333/Binding site: carbohydrate (Asn) (covalent) #
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Map position: 11q23-11q24
C; Superfamily: pollovirus receptor; immunoglobu
C; Keywords: glycoprotein; transmembrane protein
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A;Title: Complementary DNA characterization and chromosomal localization of a human
A;Reference number: JC4024; MUID:95237621; PMID:7721102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  poliovirus
C; Species:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genetics
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Species: Homo sapiens (man)
Date: 13-Jun-1995 #sequence_revision 14-Jul-1995 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cross-references: EMBL:X76400; NID:g732795;
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les 67; Conserv
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                                                                                                                                                                                                                           ATNPIGTRSGQVEVNITEFPYTPSPPEHGRRAGPVPTAIIGGVAGSILLVLIVVGGIVVA
                                                                                                                                                                                                                                                              VKNRVGSDQCLLRLDVV-----PPSN--RAGTIAGAVIG-----VLLALVLIGLIIFC 259
                                                                                                                                                                                                                                                                                                   WYLQRMDVKLTCKADANPPATEYHWTTLNGSLPKGVEAQNRTLFFKGPINYSLAGTYICE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKKAPGVGNKKIQ--LT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GETAYLPCRFTLGPEDQGPLDIEWLLSPADNQKVDQV-----IILYS---GDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MSNPLGTERAHSQLSILPTPGCRKDGTTVGIFTIAVVCSIVLTSLVWVC
                                                                                                                                                                                                                                                                                                                                                                          SGTPMAPVTVISRYRLVPSREAHQQSLACIVNYHMDRFKESLTLNVQYEPEVTIEGFDGN
                                                                                                                                                                                                                                                                                                                                                                                                                                                    VMAKPTN---WIEGTQAVLRAKKGQDDKVLVATCTSANGKPPSVVSWETRLKGEARVPGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTDVVLHCSFA-------NPLPSVKITQVTWQKSTNGSKQNVAIYNPSMGVS
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#sequence_revision
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 136.5; DB Pred. No. 0.0072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunoglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ·DGTIRLSRLELEDEGVYICEFATFP-TGNRESQLNLT
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13-Jan-1995 #text_change
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                                                                                                                                                                                                                                                                                                                                                                                                               ---TLWLAEMTSPVISVKN----
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 05-Nov-1999
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                                                                                                                                                                                                                                                                                                                                        --SGTYSCT
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RESULT PN0568

Connectin 3B - chicken N; Alternate names: Cn3

Cn3B

(fragment) B protein

connectin 3B

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F;199-234/Domain: LDL receptor ligand-binding repeat homology F;285-319/Domain: LDL receptor ligand-binding repeat homology F;325-359/Domain: LDL receptor ligand-binding repeat homology F;368-403/Domain: LDL receptor ligand-binding repeat homology F;764-811/Domain: laminin-type EGF-like homology <LEG>F;1159-1206/Domain: laminin-type EGF-like homology <LEG7>F;1159-1206/Domain: laminin-type EGF-like homology <EG7>F;1563-1610/Domain: laminin-type EGF-like homology <EG7>F;1613-1686/Domain: laminin-type EGF-like homology <LEG8>F;3163-3198/Domain: EGF homology <EGF>F;3163-3198/Domain: EGF homology <EGF
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A;Title: Structural properties of recombinant domain III-3 of perlecan c A;Reference number: S66460; MUID:95377282; PMID:7649154
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A;Cross references: EMBL:M77174; NID:g200295; PIDN:AAA39911.1; PID:g200296 R;Noonan, D.M.; Horigan, E.A.; Ledbetter, S.R.; Vogeli, G.; Sasaki, M.; Yar J. Biol. Chem. 263, 16379-16387, 1988
A;Title: Identification of cDNA clones encoding different domains of the backgreen number: A92680; MUID:89034110; PMID:2972708
A;Accession: A31917
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F;3464-3492/Domain: EGF homology <E
F;1256,1891,2336,2394,2427/Binding
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A;Title: The complete sequence of perlecan,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Molecule type: protein
A;Residues: 1272-1274,'X',1276,'X',1278-1279 <SCH>
C;Superfamily: LDL receptor ligand-binding repeat
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A; Residues: 1870-2600 < NO3>
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A; Residues: 940-1601 < NO2>
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Best Local
                                                                                                                                                                                                                                                     2459
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                                                                                                                                                                                       133 IQLTV---LLKPSGTRCYVDGSE---EIGNDFKLKCEPKEGSLPLLYEWQKLSNSQKLPT 186
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                                                                LWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPP
                                                                                                                                                                                                                                                     SGEPRSSPRWTRLGIPVKLEPRMFGLMNSHAMLKIASVKPSDAGTYVCQAQNALGTAQKQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ISIEPPSSTVQ--QGQDASFKC---LIHEGAMPIKVEWKI--RDQELEDNVHISPNGSII
PWOHRIEGNTLVIPRVAQQDSGQYICNATNSAGHTEATVVLHVESP
                                                                                                                             VELIVDTGTVAPGTPQVQVEESELTLEAGHTATLHCS-ATGNPPPTIHWSKL----RAPL
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EGF homology <EGF7>
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                                                                                                                                                                                                                                                                                                                                                                                                                                         --YDDYY---
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 136.5; DB Pred. No. 0.079;
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<LDL2>
<LDL3>
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A;Accession: S19256
A;Accession: S19256
A;Molecule type: mRNA
A;Residues: 1-57, 'D', 59-434,'A', 436,'
71-2979,'H', 2981-2994,'G', 2996-3167,'
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A; Residues: 1-1323 <MAR>
A; Cross-references: DDBJ:D16541;
A; Experimental source: skeletal m
C; Comment: This protein string-li
                        R;Kallunki, P.; Eddy, R.L.; Byers,
Genomics 11, 389-396, 1991
A;Title: Cloning of human heparan
                                                          A;Molecule type: mRNA
A;Residues: 1-57,'D',59-434,'A',436,'FL',438-449,'Q',451-502,'A',503-792,'K',794-908,'R
A;Residues: 1-57,'D',59-434,'A',436,'FL',438-449,'Q',451-502,'A',503-792,'K',794-908,'R
71-2979,'H',2981-2994,'G',2996-3167,'T',3169-3240,'R',3242-3426,'R',3428-3631,'Q',3633-
A;Cross-references: EMBL:X62515; NID:g29469; PIDN:CAA44373.1; PID:g29470
A;Kallunki, P:; Eddy, R.L.; Byers, M.G.; Kestilae, M.; Shows, T.B.; Tryggvason, K.
                                                                                                                                                                                                                                     submitted to the EMBL Data A; Reference number: .S77946 A; Accession: S77946
                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Title: Human basement membrane heparan sulfate proteoglycan ell adhesion molecules, and epidermal growth factor.
A;Reference number: A41736; MUID:92112994; PMID:1730768
A;Accession: S19256
A;Molecularia
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A; Residues: 1-4391 <m/l>
A; Residues: 1-4391 <m/l>
A; Cross-references: GB: M85289; NID: g184426; PIDN: AAA52700.1;
R; Kallunki, P.; Trygyvason, K.
J. Cell Biol. 116, 559-571, 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              perlecan precursor - human N;Alternate names: basemen
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A;Title: A novel domain sequence of connectin localized at
A;Reference number: PN0568; MUID:93356802; PMID:8352787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tor, laminin, neural cell ac
A; Reference number: A38096;
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Species: Homo sapiens (man)
Jacecies: Homo sapiens (man)
Jacecies: O7-Apr-1994 #sequence_revision O7-Apr-1994 #text_change O5-Nov-1999
Jacecession: A38096; S19256; S77946; A41059; A40306; B33625; A33825; A41736
Murdoch, A.D.; Dodge, G.R.; Cohen, I.; Tuan, R.S.; Iozzo, R.V.
Biol. Chem. 267, 8544-8557, 1992
J. Riccion Revenue and Parketter and Parket
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03-May-1994 #sequence_revision 07-Oct-1994 #text_change
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human heparan sulfate p
A41059; MUID:92120660;
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'T',3169-3240,'R',3242-3426,'R',3428-3631,'Q',3633-
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proteoglycan
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Genomics 10, 673-680, 1991
A;Title: Heparan sulfate p
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Matches 57
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57; Conserv
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A,Map position: 1p36.1-1p36.1
C;Superfamily: LDL receptor ligand-binding repeat homology; C;Superfamily: LDL receptor ligand-binding repeat homology; C;Keywords: chondroitin sulfate proteoglycan; glycoprotein; C;Keywords: chondroitin sulfate proteoglycan; Signal sequence #status predicted <SIG>F;1-21/Domain: signal sequence #status predicted <MAT>
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F;199-234/Domain: LDL receptor ligand-binding
F;285-319/Domain: LDL receptor ligand-binding
F;325-359/Domain: LDL receptor ligand-binding
F;368-403/Domain: LDL receptor ligand-binding
F;531-1676/Domain: III <DOM3>
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A;Residues: 1018-1405,'G',1407-1409,'G',1411-1465 <DOD>
A;Cross-references: GB:M64283; NID:g184424; PIDN:AAA53899.1;
A;Cross-references: GB:M64283; NID:g184424; PIDN:AAA53899.1;
A;Cross-references: GB:M64283; NID:g184424; PIDN:AAA53899.1;
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A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 'RT', 892-908,'R',910-1101,'L',1103-1132,'L',1134-1221,'L',1223-1397
A;Cross-references: GB:S76436; NID:g243370; PIDN:AAB21121.1; PID:g243371
A;Cross-references: GB:S76436; NID:g243370; PIDN:AAB21121.1; PID:g243371
A;Cross-references: GB:S76436; NID:g243370; PIDN:AB21121.1; PID:g243371
A;Cross-references: GB:S76436; NID:g243370; PIDN:AB21121.1; PID:g243371
A;Cross-references: GB:S76436; NID:g243370; PIDN:AB21121.1; PID:g243371
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F;3888-3921/Domain: EGF homology <EGF>
F;3888-3921/Domain: EGF homology <EGF>
F;3953-4106/Domain: laminin G repeat homology <LG2>
F;4147-4175/Domain: EGF homology <EGF2>
F;4149-4151/Region: motor neuron attachment (L-R-E) motif
F;4299-4301/Region: motor neuron attachment (L-R-E) motif
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;3007-2034/Domain: transmembrane #status
F;3687-4391/Domain: V <DOM5>
F;3845-3880/Domain: EGF homology <EGF1>
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F;1613-1668/Domain: laminin-type
F;1677-3686/Domain: IV <DOM4>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F;1159-1206/Domain: laminin-type EGF-like F;1563-1610/Domain: laminin-type EGF-like F;1613-1668/Domain: laminin-type EGF-like
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J. Cell Biol. 109, 3199-3211, 1989
A;Title: Matrix-associated heparan sulfate
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A;Residues: 2166-2171,'X',21
A;Note: peptide potentially
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A;Residues: 1379-1384,'X',1386-1388,'X',1390-1398
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F;22-193/Domain: I <DOM1>
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                                                     EATIILHVESPPYATTVPEHASVQAGETVQLQC-LAHGTPPLTFQWSRVGSS--LP-
                                                                                                                                                                                                                                                                                  TGAMAPGAPQVQAEEAELTVEAGHTATLRCSATGSPAP----TIHWSKLRSPLPWQ----
AEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVV-PPSNRAGT
                                                                                                          NKKI QLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSNSQKLPTLWL
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24.8%;
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8; Mismatches
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C,Accession: S70587
R;Taylor, M.R.; Peterson, U.A.; Ceriani, R.L.; Couto, J.R.
Biochim. Biophys. Acta 1306, 14, 1996
A;Title: Cloning and sequence analysis of human butyrophilin reveals a potential receptor A;Reference number: S70587; MUID:96201696; PMID:8611614
A;Accession: S70587
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A,Molecule type: mRNA
A,Residues: 1-526 <TAX>
A,Cross-references: EMBL:U39576; NID:g1326082; PIDN:AAC50489.1; PID:g1326083
                                                                                                                     butyrophilin precursor - human
C;Species: Homo sapiens (man)
C;Date: 14-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 21-Jul-2000
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3343 ATARNELLHFERAAPEDSGRYRCRVTNKVGSAEAFAQLLVQGPPGSLPAT 3392
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July 9, 2003, 12:42:08; Search time 10 Seconds (without alignments) 1082.532 Million cell updates/sec
GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
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US-09-899-634C-2 1359 1 MALLICFVLLCGVADLTRSL......AVIGVLLALVLIGLIIFCCR 261 Title: Perfect score:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Sequence:

Scoring table:

112892 segs, 41476328 residues Searched:

112892 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt 40:* Database : Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	P78310 homo sapien	พนธา	homo	homod	homo	bos t	O88792 mus musculu	Q00609 mus musculu	P18892 bos taurus	Q95242 sus scrofa		Q15223 homo sapien		s sns	homo	рошо	rattu		drosc	P20938 heterodontu	Q08481 mus musculu	P53767 rattus norv	homo	homo	mus m	Q90304 carassius a		O15394 homo sapien	4082	in	21	9147 drosc	O60469 homo sapien
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マのひひゃっ	adenovirus rec	edenovirus receptor) (hCAR) (CVB3 binding protein).	VB3 bin	dina n	rotein).	
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	SECTIENCE FROM N A	V N				
EX.	MEDLINE=971901	MEDLINE=97190109: PubMed=9036860:	160:			
RA	Bergelson J.M.	, Cunningham J.P	., Drog	uett G	., Kurt-Jones E.,	Ю.,
RA	Krithivas A.,	Krithivas A., Hong J.S., Horwitz M.S., Crowell R.L., Finberg	.tz M.S.	, Crow	ell R.L., Fin	berg R.W.;
RT	"Isolation of	a common recepto	or for C	oxsack	ie B viruses	and
RT	adenoviruses 2	2 and 5.";				
Z Z	Science 275:13	Science 275:1320-1323(1997).				
200	CECITENCE EBOM N N	~ 2				
i X	MEDITUR= 972505	SECOENCE FROM N.A. MEDI.INE=97250541: DubMed=9096397:	. 647 .			
RA	Tomko R.P. Xu	R. Philipson I				
RT	"HCAR and MCAR	"HCAR and MCAR: the human and mouse cellular receptors	monse c	ellula	r receptors f	for subgroup C
RT	adenoviruses a	adenoviruses and group B coxsackieviruses.";	ckievir	uses."		
R.	Proc. Natl. Acad.	ad. Sci. U.S.A.	94:3352-3356(1997).	-3356(1997).	
RN	[3]					
RP	SEQUENCE FROM	SEQUENCE FROM N.A.	į			
5 5	Rowles K P G	MEDLINE=20008/30; Publica=10343403; Rowles K.P. Gibson J. Wi. J. Shaffer I. G	Shaffe	ن نــ	4 L. nidwor	
4 4	Rowles N E .		,			•
2 E	"Genomic ordan	"Genomic organization and chromosomal localization of	lenosome	local	ization of the	e human
E.	Coxeackievirus	Coxsackievinis B-adenovinis receptor dene.":	centor	gene."		
RI	Hum. Genet. 10	Hum. Genet. 105:354-359(1999).	1			
RN	[4]					
RP	SEOUENCE FROM N.A.	N.A.				
RA	Anderson C.W.,	Kieleczawa J.,	Dunn J.	J., Fr	eimuth P.;	
RT	"Sequence and	"Sequence and expression of CXADR, the human gene	CADR, th	e huma	n gene for the	O
RT	coxsackievirus	coxsackievirus and adenovirus receptor.";	recepto	r.";		
RL	Submitted (OCI	Submitted (OCT-1999) to the EMBL/GenBańk/DDBJ databases.	IBL/GenB	ańk/DD	3J databases.	
ပ္ပ	-:- FUNCTION:	SERVES AS A RECE	SPTOR FO	R GROU	P B COXSACKIE	VIRUSES AND
ပ္ပ	SUBGROUP C	OF ADENOVIRUSES	(AD2 A	ND ADS		
ט	- : - SUBCELLULA	SUBCELLULAR LOCATION: Type I membrane protein.	I memb	rane p	rotein.	
ပ္ပ	-!- SIMILARITY	SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.	ONDWWI 3	GLOBUL	IN SUPERFAMIL	٧.
ပ္ပ	-!- SIMILARITY	: CONTAINS 2 IMP	MUNOGLOB	ULIN-L	IKE C2-TYPE D	OMAINS.
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ပ္ပ	een	the Swiss Institute of Bioinformatics and the EMBL outstation	of Bioin	format	ics and the	EMBL outstation
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                                                                                                                                                                                                                                                                                                                                                                                                                                      KVKKAPGVANKKIHLVVLVKPSGARCYVDGSEEIGSDFKIKCEPKEGSLPLOYEWQKLSD 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SQKMPTSWLAEMTSSVISVKNASSEYSGTYSCTVRNRVGSDQCLLRLNVVPPSNKAGLIA 240
                                                                                                                                                                                                                                                                                                                                                                                                                             KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN 180
                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                      1 MALLLCFVLLCGVVDFARSLSITTPEEMIEKAKGETAYLPCKFTLSPEDQGPLDIEWLIS 60
                                                                                                                                                                                                                                                                                                                                                     1 MALLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS
                                                                                                                                                                                                                                                                                                                                                                                        PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDOCLLRLDVVPPSNRAGTIA
                                                                                                                                                                           mmunoglobulin domain; Receptor; Transmembrane; Glycoprotein; Signal;
                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                       RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                   COXSACKIEVIRUS AND ADENOVIRUS RECEPTE EXTRACELLULAR (POTENTIAL).
CYPOPLASMIC (POTENTIAL).
IG-LIKE C2-TYPE DOMAIN 1.
IG-LIKE C2-TYPE DOMAIN 2.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JUNAY-2000 (Rel. 39, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Coxsackievirus and adenovirus receptor homolog precursor (mCAR).
CXADR OR CAR.
                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                                                                                                                                                                                                Score 1238; DB 1; Length 365; Pred. No. 5.7e-96;
                                                                                                                                                                                                                                                                                                                                   15; Indels
                                                                                                                                                                                                                                                                                        LINKED (GLCNAC. . .) (Po
AB01C6346CB7FE64 CRC64;
                                                                                                                                                                                                                                                                                                                         ; Pred. No. 5.7e-
13; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    365 AA.
                  U90716; AAC51234.1; -... AF169366; AAF05908.1; JOINED. AF169361; AAF05908.1; JOINED. AF169362; AAF05908.1; JOINED. AF169362; AAF05908.1; JOINED. AF169364; AAF055098.1; JOINED. AF169365; AAF055098.1; JOINED. AF169365; AAF055098.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAVIGVLLALVLIGLIIFCCR 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CXAR MOUSE STANDARD;
197752, 009052;
30-MAY-2000 (Rel. 39, Created)
30-MAY-2000 (Rel. 39, Last seq
                                                                                                                   InterPro; IPR003006; 19_MHC.
InterPro; IPR003598; 19_c2.
InterPro; IPR003600; 19_like.
                                                                                                                                                                                                                                                                                               40029 MW;
                                                                                                                                                                                                                                                                                                                 91.1%;
          Y07593; CAA68868.1; -.
                                                                                          AAF24344.1;
                                                                                                                                              Pfam, PF00047; ig; 2.
SMART, SM00410, IG like; 1.
SMART, SM00408; IGC2; 1.
                                                                                                                                                                                                                                                                                                                         Best Local Similarity 89.33
Matches 233; Conservative
                                                                                                   Genew; HGNC:2559; CXADR
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20
20
23
259
259
155
162
106
365 AA;
                                                                                           EMBL; AF200465;
                                                                                                             MIM; 602621;
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TRANSMEM
DOMAIN
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DOMAIN
DISULFID
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                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                      Repeat.
                                    EMBL;
EMBL;
                                                                                                                                                                                                      CHAIN
                                                                        EMBL;
EMBL;
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to licenseaise.sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED (GLCNAC. ..) (POTENTIAL).
VAAPNLSRMGAVPVMIPAQSKDGSIV -> FKYAYKTDGIT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [mmunoglobulin domain; Receptor; Transmembrane; Glycoprotein; Signal;
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                                                                                                                                                                                                                                                                                                 Tomko R.P., Xu R., Philipson L.;
"HCAR and MCAR: the human and mouse cellular receptors for subgroup adenoviruses and group B coxsackieviruses.";
Proc. Natl. Acad. Sci. U.S.A. 94:3352-3356(1997).
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                                                                                    R.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
CYTOPLASMIC (POTENTIAL).
IG-LIKE C2-TYPE DOMAIN 1.
IG-LIKE C2-TYPE DOMAIN 2.
BY SIMILARITY.
BY SIMILARITY.
N'LINKED (GLCNAC. .) (POTENTIAL).
N'LINKED (GLCNAC. .) (POTENTIAL).
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MEDLINE=97190109; PubMed=9036660;
Bergelson J.M., Cunningham J.A., Droguett G., Kurt-Jones E.,
Krithivas A., Hong J.S., Horwitz M.S., Crowell R.L., Finberg
"Isolation of a common receptor for Coxsackie B viruses and
                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=CS7BL/6J; TISSUE=Liver;
Bergelson J.M., Krithivas A., Crowell T.L., Finberg R.W.;
"The murine CAR homologue (mCAR) is a receptor for coxsackie viruses and adenoviruses.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Score 1216; DB 1; Length 365;
; Pred. No. 3.9e-94;
15; Mismatches 16; Indels (
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5445B4B52A34B2A2 CRC64;
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                                                                                                                                                                                                                                                STRAIN=C3H/MAI;
MEDLINE=97250541; PubMed=9096397;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; Y11929; CAA72679.1; -. MGD; MGI:1201679; Cxadr. InterPro; IPR003006; Ig_MHC. InterPro; IPR003598; Ig_C2. InterPro; IPR003598; Ig_C2. InterPro; IPR003600; Ig_like. Pfan; SM00410; Ig_like; 1. SMART; SM00408; IGG2; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; Y10320; CAA71368.1; -. EMBL; U90715; AAC53148.1; -.
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                                                                                                                                        adenoviruses 2 and 5.";
Science 275:1320-1323(1997)
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Best Local Similarity 88.19
Matches 229; Conservative
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365
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365
127
219
212
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201
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us-09-899-634c-2.rsp

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InterPro; IPR003596; Ig_v.
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DOMAIN
TRANSMEM
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DISULFID
DISULFID
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CARBOHYD
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PSDNQIVDQVIILYSGDKIYDNYYPDLKGRVHFTSNDVKSGDASINVTNLQLSDIGTYQC 120
                                                                                  KVKKAPGVANKKFLLIVLVKPSGTRCFVDGSEIGNDFKLKCEPKEGSLPLQFEWQKLSD 180
                                                                                                                                                                                          181 SQTMPTPWLAEMTSPVISVKNASSEYSGTYSCTVQNRVGSDQCMLRLDVVPPSNRAGTIA 240
                                                      KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN
                                                                                                                                                            SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA
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Blochem. Blophys. Res. Commun.",
Elochem. Blophys. Res. Commun.",
ENGRIDON: MAY PLAY A ROLE IN CELL-CELL RECCONITION AND SIGNALING.
-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- TISSUE SPECIFICITY: EXPRESSED IN NORMAL GASTROINTESTINAL BPITHELLUM AND IN 95% OF COLON CANCERS.
-!- PIPE: N-GLYCOSYLATED, CONTAINS APPROXIMATELY 8 K OF N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "The human A33 antigen is a transmembrane glycoprotein and a novel member of the immunoglobulin superfamily.";
Proc. Natl. Acad. Sci. U.S.A. 94:469-474(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
NCBI_TaxID=9606,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Heath J.K., White S.J., Johnstone C.N., Catimel B., Simpson R.J., Moritz R.L., Tu G.-F., Ji H., Whitehead R.H., Groenen L.C., Scott A.M., Ritter G., Cohen L., Welt S., Old L.J., Nice B.C., Burgess A.W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Characterization of posttranslational modifications of human A33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POST-TRANSLATIONAL MODIFICATIONS.
MEDLINE=97396159; PubMed=9245713;
Ritter G., Cohen L.S., Nice B.C., Catimel B., Burgess A.W.,
Moritz R.L., Ji H., Heath J.K., White S.J., Welt S., Old L.J.,
Simpson R.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -!- PTM: PALMITOYLATED.
-!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
-!- SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN.
-!- SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1997 (Rel..35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Cell surface A33 antigen precursor (Glycoprotein A33).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         319 AA
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TISSUE=Colon carcinoma;
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GAVIGTLLALVLIGAILFCC 260
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InterPro; IPR003600; Ig_like.
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Cell surface
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67 VDQVIILYSGDK--IYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKK 124
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122 MSDLEGNTKSRVRLLVLVPPSKPECGIEGETIIGNNIQLTCQSKEGSPTPQYSWKRYNIL 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            182 NQEQP---LAQPASGQPVSLKNISTDTSGYYICTSSNEEGTQFCNITVAVRSPSMNVALY 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12 LCAVRVTVDAISVETPQDVLRASQGKSVTLPCTYHTSTSSREGL-IQWDKLLLT----H 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEW----LLSPADNQK 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 SOKLPTLWLAEMTS-PVISVKNASTEYSGTYSCTVKNRVGSDOCLLRLDVVPPSNRAGTI
                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE-99323940; PubMed=10395639;
Ozaki H., Ishii K., Horiuchi H., Arai H., Kawamoto T., Okawa K.,
Iwamatsu A., Kita T.;
"Cutting edge: combined treatment of TNP-alpha and IFN-gamma causes
"Cutting edge: combined treatment of TNP-alpha in human endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-UNN-2002 (Rel. 41, Last annotation update)
15-UNN-2002 (Rel. 41, Last annotation update)
molecule 1) (PAM-1) (Platelet Fil receptor).
JAMI OR JCAM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :
                                                                                                                                                                                                                                                                                                       N-LINKED (GLCNAC. .).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
9BFC7AAF45C2408E CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                        23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
Sobocka M.B., Sobocki T., Rushbrook J.I., Banerjee P., Weiss
                                                                                                                                                                                                                                                                                                                                                                                                     DB 1; Length 319;
Pfam; PF00047; ig; 2. SMART; SM00410; IG_like; 1. SMART; SM00410; IG_like; 1. SMART; SM00406; IGv; 1. Immunoglobulin domain; Lipoprotein; Palmitate; Glycoprotein; Transmembrane; Signal; Antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                        96; Indels
                                                                                                                                                                     CYTOPLASMIC (POTENTIAL).
IG-LIKE V-TYPE DOMAIN.
IG-LIKE C2-TYPE DOMAIN.
POLY-CYS.
POTENTIAL.
POTENTIAL.
POTENTIAL.
                                                                                                                CELL SURFACE A33 ANTIGEN.
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                   Score 351.5; DB 1
Pred. No. 3.9e-22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                        53; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240 AGAVIGVLLALVLIGLIIFCC 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | :||:||:||:||
239 VGIAVGVVAALIIIGIIIYCC 259
                                                                                                                                                                                                                                                                                                                                                                35632 MW;
                                                                                                                                                                                                                                                                                                                                                                                                   25.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                        89; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                319 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9606;
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236
257
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258
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200
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Q9Y624;
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RESULT 5
JAM2_HUMAN
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                                                                                                                                                                                                                                                                                                                                                                -!- FUNCTION: PLAYS A ROLE IN REGULATING MONOCYTE TRANSMIGRATION INVOLVED IN INTEGRITY OF EPITHELIAL BARRIER. INVOLVED IN PLATELET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00047; ig; 2. SMART; SM00410; ig; 1. SMART; SM00406; ig_like; 1. SMART; SM00406; igV; 1. Tight junction; Immunoglobulin domain; Glycoprotein; Transmembrane;
                                                                            SEQUENCE FROM N.A.

Naik U.P., Naik M.U., DeLeon P., Spychala J.;

Cloning and characterization of PAM-1, a novel platelet adhesion molecule involved in platelet activation.";

Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                              TISSUE=Brain;
MEDLINE=21154917; PubMed=11210166;
MEDLINE=21154917; PubMed=11210166;
Midmann S., Weil B., Wellenreuther R., Gassenhuber J., Glassl S., Ansorge W., Boecher M., Bloecker H., Bauersachs S., Blum H., Lauber J., Duesterhoeft A., Beyer A., Koehrer K., Strack N., Mewes H.-W., Ottenwaelder B., Obermaier B., Tampe J., Heubner D., Mambutt R., Korn B., Klein M., Poustka A.;
"Towards a catalog of human genes and proteins: sequencing and analysis of 500 novel complete protein coding human cDNAs.";
Genome Res. 11:422-435 (2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL)
               of the cDNA of F11 receptor,
                                                                                                                                                                                                                                                                                                                                                                                                               -! SUBCELLULAR LOCATION: Type I membrane protein (Potential).
-! TISSUE SPECIFICITY: LOCALIZED AT TIGHT JUNCTIONS OF BOTH
-EPITHELIAL AND ENDOTHELIAL CELLS.
-! SIMILARITY: BELONGS TO THE IMMINOGLOBULIN SUPERFAMILY.
-! SIMILARITY: CONTAINS 2 IMMUNOGLOBULIN-LIKE V-TYPE DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14.4%; Score 196; DB 1; Length 299; 25.9%; Pred. No. 3.3e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JUNCTIONAL ADHESION MOLECULE EXTRACELLULAR (POTENTIAL).
                               novel Ig superfamily member from human platelets.";
Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D95DE2FEA23D2851 CRC64;
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CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IG-LIKE V-TYPE DOMAIN 1.
IG-LIKE V-TYPE DOMAIN 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GLCNAC. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-LINKED
               and sequencing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL, AF111713; AAD42050.1; -. EMBL, AF207907; AAF22829.1; -. EMBL, AF172398; AAD48877.1; -. EMBL, AL136649; CAB66584.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   32583 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    interPro; IPR003006; Ig MHC.
InterPro; IPR003600; Ig_like.
InterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HGNC:14685; JAM1.
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153
185
185
299 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
ses 72; Conserv
Kornecki E.;
"Molecular cloning
                                                                                                                                                                                  SEQUENCE FROM N.A.
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239
239
260
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MIM; 605721;
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TRANSMEM
DOMAIN
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1 MALLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFT--LGPEDQGPLDIEWL 58

54;

Pred. No. 3.3e-09; ; Mismatches 108; Indels

44;

Conservative

Best Loc Matches

g 8

63

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                                       107
                                                                             119 QCKVKKAPG--VGNKKIQLTVILKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQ 176
                                                                                                                    108 TCMVSEEGGNSYGEVKVKLIVLVPPŠKPTVNIPSŠATIGNRAVLTČSEQDGŠPPSEYTWF 167
                                                                                                                                                              K-----LSNSQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQ 222
                                                                                                                                                                                                    168 KDGIVMPTNPKSTRAFSNSSYVLNPTTGELVFDPLSASD-----TGEYSCEARNGYGTPM 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ဥ
                         64 FDQGDTTR----LVCYN-NKITASY----EDRVTF----LPTGITFKSVTR---EDTGTY
59 LSPADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Cunningham S.A., Arrate M.P., Rodriguez J.M., Bjercke R.J., Vanderslice P., Morris A.P., Brock T.A.; "A novel protein with homology to the junctional adhesion molecule: Characterization of leukocyte interactions."; J. Biol. Chem. 275:34750-34756(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
TISSUE-vascular endothelial cells;
MEDLINE-2011/114; PubMed=10779521;
MEDLINE-2011/114; PubMed=10779521;
Palmeri D., van Zante A., Huang C.C., Hemmerich S., Rosen S.D.;
"Vascular endothelial junction-associated molecule, a novel member el mimunoglobulin superfamily, is localized to intercellular
boundaries of endothelial cells."
J. Biol. Chem. 275:19139-19145(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN. SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN. DATABASE: NAME=PROW 1:1-3 (2001); WWW="http://www.ncbi.nlm.nih.gov/prow/guide/1652492186_g.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Junctional adhesion molecule 2 precursor (Vascular endothelial junction-associated molecule) (VE-JAM).
JAM2 OR VEJAM OR C21ORF43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Butel(
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY
                                                                                                                                                                                                                                            223 C--LLRLDVVPPSNRAGTIAGAVIGVLLALVLIGLIIF 258
                                                                                                                                                                                                                                                                   223 TSNAVRMEAV--ERNVGVIVAA---VLVTLILLGILVF
                                                                                                                                                                                                                                                                                                                                                                                                                       16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                     298 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=20507930; PubMed=10945976;
                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
TISSUE=Placenta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                     JAM2 HUMAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61 PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109 MVSDEGGNTYGEVTVQLIVLVPPSKPTINVPSSVTIGTRAVLTCSERDGSPPSEYKWFKD 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    169 GVEMPLEPKSNRAFSNS----SYTLNQKTGELI-FDPVSASDTGDFTCQAQNGYASP--- 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----LSNSQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCL 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3 LLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFT--LGPEDQGPLDIEWLLS 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ::|| :| | | :: | | :: | | :: | | :: | | :: | | :: | | :: | | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: | :: 
                                                                          -:- FUNCTION: PLAYS A ROLE IN REGULATING MONOCYTE TRANSMIGRATION INVOLVED IN INTEGRITY OF EPITHELIAL BARRIER. INVOLVED IN PLATELET ACTIVATION (BY SIMILARITY).
-:- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
-:- SIBSUE SPECIFICITY: LOCALIZED AT TIGHT JUNCTIONS OF BOTH EPITHELIAL AND ENDOTHELIAL CELLS.
-:- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
-:- SIMILARITY: CONTAINS 2 IMMUNOGLOBULIN-LIKE V-TYPE DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65 HGDIRG----LVCYN-NKITASY----ENRVTFS-----DTGITFHSVTRKDTGMYTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 KVKKAPG--VGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQK-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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InterPro; IPR003006; Ig_MHC.
InterPro; IPR003598; Ig_c2.
InterPro; IPR003600; Ig_like.
Pfam; PF00047; ig; 2.
SMART; SM00410; IG like; 1.
SMART; SM00408; IGG2; 1.
Tight junction; Immunoglobulin domain; Glycoprotein; Transmembrane;
Repeat; Signal.
  redistribution of junctional adhesion molecule in human endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-LINKED (GLCNAC. . .) (POTENTIAL) 714FE1C1714769A2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12.6%; Score 171; DB 1; Length 298; 25.9%; Pred. No. 4e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
JUNCTIONAL ADHESION MOLECULE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40, Mismatches 113, Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL)
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(Rel. 40, Last sequence update)
(Rel. 41, Last annotation update)
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nes 71; Conservative
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088792;
16-0CT-2001
16-0CT-2001
15-JUN-2002
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TRANSMEM
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----KKL------GRSVSFVYYQQTLQGDFKNRAEMI-----DFNIRIKNVTRSDA 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTYQCKVKKAPGVGNKKIQ----LTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLP 170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          164 PEYTWFKDGIRLLENPRLGSOSTNSSYTMNTKTGTLOFNTVSKLDTGEYSCEARNSVGYR 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 MALLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 PADNOKVDOVIILYSGDKIYDDYYQ----DLKGRVHFTSNDLKSGDASINVTNLQLSDI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bos taurus (Bovine).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE=99323940; PubMed=10395639;
OGZAKI H. 1Shli K., Horiuchi H., Arai H., Kawamoto T., Okawa K.,
Iwanatsu A., Ishi Y.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                53;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
POTENTIAL.
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
CA78E518E22DCAEE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13.4%; Score 181.5; DB 1; Length 298;
larity 24.0%; Pred. No. 5.4e-08;
Conservative 44; Mismatches 115; Indels 53;
                                                                                                                                                                                                                                                                                                                                                                                                                           JUNCTIONAL ADHESION MOLECULE 2
                                                                                                                                                                                                                                                                                                                                                                         Transmembrane; Signal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL. CYTOPLASMIC (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   224 RC------PGKRMQVDDLNISGIIAAVVVVALVISVC 254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IG-LIKE V-TYPE DOMAIN. IG-LIKE C2-TYPE DOMAIN.
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16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Junctional adhesion molecule 1 precursor (JAM).
an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                     Pfam; PF00047; ig; 2.
SMART; SM00410; IG like; 1.
SMART; SM00408; IGC2; 1.
Immunoglobulin domain; Glycoprotein; SIGNAL
                                                  EMBL; AF255910; AAF81223.1; -. EMBL; AY016009; AAG49022.1; -. EMBL; BC017779; AAH17779.1; -.
                                                                                                                                                             MIM, 606870; -.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003598; Ig_c2.
InterPro; IPR003600; Ig_like.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33207 MW;
                                                                                                                            HGNC:14686; JAM2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  236 .
298 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    239
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Q9XT56;
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CARBOHYD
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SEQUENCE
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                                                                                                                                           Genew;
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187 SFT---IDPKSGDLIFDPVTAFDSGEYYCQAQNGYGT---AMRSEAAHMDAVELNVGGIV 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=91341422; PubMed=1714935; Gray G.S., Freeman G.J., Gimmi C.D., Lombard D.B., Zhou L.J., White M., Fingeroth J.D., Gribben J.G., Nadler L.M.; "Structure, expression, and T cell costimulatory activity of the murine homologue of the human B lymphocyte activation antigen B7."; J. Exp. Med. 174:625-631(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -i- DEVELOPMENTAL STAGE: EXPRESSED BETWEEN 4 AND 12 HOURS POST-ACTIVATION. PROTEIN WAS DETECTED AT CELL SURFACE AT 24 HOURS ANI IT'S EXPRESSION WAS MAXIMAL FROM 48 TO 72 HOURS POST-ACTIVATION -i-SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
-i-SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAIN.
-i-SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=B-cell;
MEDLINE=93307789; PubMed=7686531;
Selvakumar A., White P.C., Dupont B.;
"Genomic organization of the mouse B-lymphocyte activation antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Immunogenetics 38:292-295(1993).
-!- FUNCTION: INVOLVED IN THE COSTIMULATORY SIGNAL ESSENTIAL FOR T LYMPHOCYTES ACTIVATION. T CELL PROLIFERATION AND CYTOKINE PRODUCTION IS INDUCED BY THE BINDING OF CD28 OR CTLA-4 TO THIS
                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                             Ul-FEB-1994 (Rel. 28, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
T lymphocyte activation antigen CD80 precursor (Activation B7-1 antigen) (B7)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: EXPRESSED ON ACTIVATED B CELLS, GAMMA
INTERPERON STIMULATED MONOCYTES AND NONCIRCULATING B-CELL
                                                                                                                                                                                                                             306 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; X60958; CAA43291.1; -. EMBL; L12589; AAA37240.1; ALT SE0. EMBL; L12586; AAA37240.1; JOINED. EMBL; L12586; AAA37240.1; JOINED. EMBL; L12588; AAA37240.1; JOINED. EMBL; L12588; AAA37240.1; JOINED.
                                                                                                                                                                                                                                                                     01-FEB-1994 (Rel. 28, Created)
01-FEB-1994 (Rel. 28, Last seq
15-JUN-2002 (Rel. 41, Last ann
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241 AAVLVTLILLGLLIF 255
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InterPro; IPR003599; IG.
InterPro; IPR003006; IG MHC.
                                                                  244 IGVLLALVLIGLIIF
                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIR; S17291; S17291.
HSSP; P33681; 1DR9.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                                                                                                                                                                           CD80 MOUSE
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                                                                                                                                                                                 RESULT 8
CD80_MOUSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMTSPVISVKNASTEY-----SGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIAGAV 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=98327120; PubMed=9660867;
Martin-Padura I., Lostaglio S., Schneemann M., Williams L., Romano M.,
Fruscella P.: Panzeri C., Stoppacciaro A., Ruco L., Villa A.,
                                                                                                                                                                                                                                                Simmons D., Dejana E.; "Junctional adhesion molecule, a novel member of the immunoglobulin superfamily that distributes at intercellular junctions and modulates monocyte transmigration.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SITTPEQMIEKAKGETAYLPCRFT--LGPEDOGPLDIEWLLSPADNOKVDOVIILYSGDK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79 IYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKKAPG--VGNKKIQLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ITAPY----ADRVTFSS-----SGITFSSVTRKDNGEYTCMVSEEGGONYGEVSIHLT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             137 VLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQK-----LSNSQKLPTLWLA
                                                                                                                                                                                                                                                                                                                                     J. Cell Biol. 142:117-127(1998).
-!- FUNCTION: PLAYS A ROLE IN REGULATING MONOCYTE TRANSMIGRATION INVOLVED IN INTEGRITY OF EPITHELIAL BARRIER. INVOLVED IN PLATELET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Score 161.5; DB 1; Length 300; 
; Pred. No. 2.5e-06; 
37; Mismatches 108; Indels 45; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00047; ig; 2. "-"
MARTY, SM00410; IG1 like; 1.
SMART, SW00406; IG1 like; 1.
Tight junction; Immunoglobulin domain; Glycoprotein; Transmembrane;
                                                             Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
-!- TISSUE SPECIFICITY: LOCALIZED AT TIGHT JUNCTIONS OF BOTH
EPITHELIAL AND ENDOPTHELIAL CELLS.
-!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
-!- SIMILARITY: CONTAINS 2 IMMUNOGLOBULIN-LIKE V-TYPE DOMAINS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JUNCTIONAL ADHESION MOLECULE EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          391F3E48FF3B97EC CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IG-LIKE V-TYPE DOMAIN 1.
IG-LIKE V-TYPE DOMAIN 2.
POTENTIAL.
POTENTIAL.
  Junctional adhesion molecule 1 precursor (JAM).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MGD; MGI:1321398; Joaml.
InterPro; IPR003006; Ig_MHC.
InterPro; IPR003600; Ig_like.
InterPro; IPR003596; Ig_v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            32368 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11.9%;
25.5%;
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300
238
238
259
299
115
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212
                       JAM1 OR JCAM1 OR JCAM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           42
185
300 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                              NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 145
145
152
                                                                                                                                                                                                                                                                                                                                                                                                              ACTIVATION.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   65;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        29
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DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                              QKLSNSQKLPTLWLAEMTSPVISVKNAST--EYSGTYSCTVKNRVGSDQCLLRL----- 227
                                                                                                                                                                                                                                                                                                               LLLCFVLLCGVADLTRSLSITTPEQMIEXAKGETAYLPCRFTLGPEDQGPLDIEWLLSPA 62
                                                                                                                                                                                                                                                                                                                                                                     71 --QKHDKVVLSVIAGKLKVWPEY----KNRTLYDNTTY-----SLIILGLVLSDRGTYSC
                                                                                                                                                                                                                                                                                                                                    21 LILLFVLLIRLSQVSSDV----DEQLSKSVKDKVLLPCRYNSPHEDESEDRIYW----
                                                                                                                                                                                                                                                                                                                                                         63 DNOKVDOVII-LYSGD-KIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
                                                                                                                                                                                                                                                                                                                                                                                                    121 KVKKAPGVGNKKIQLTVLLKPS-----GTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=9035441; PubMed=2387867; Jack L.J.W., Mather I.H.; PubMed=2387867; Jack L.J.W., Mather I.H.; Jack L.J.W., Mather I.H.; Jelloning and analysis of cDNA encoding bovine butyrophilin, an apical glycoprotein expressed in mammary tissue and secreted in association with the milk-fat globule membrane during lactation."; J. Biol. Chem. 265:14481-14486 (1990).
                                                                                                                                                                                                                                                                                          56; Gaps
InterPro; IPR003600; Ig_like.
Pfan; PF00047; ig; 2.
SMART; SM00409; IG; 1.
SMART; SM00410; IG_like; 1.
Immunoglobulin domain; T-cell; Glycoprotein; Signal; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bos taurus (Bovine).
Bukaryota, Metazoa; Chordata, Craniata, Vertebrata, Buteleostomi;
Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                            LYMPHOCYTE ACTIVATION ANTIGEN CD80.
                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                     (POTENTIAL)
                                                                                                                                                                                                                                                                  11.3%; Score 154; DB 1; Length 306; 22.9%; Pred. No. 1.1e-05; Live 55; Mismatches 108; Indels
                                                                                                           CYTOPLASMIC (POTENTIAL).

IG-LIKE V-TYPE DOMAIN.

IG-HIKE C2-TYPE DOMAIN.

IG-HINGE LIKE (POTENTIAL).

POTENTIAL.

POTENTIAL.

N-LINKED (GLCNAC. ...) (POTENTIAL).

N-LINKED (GLCNAC. ...) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      230 EDFTWEKPPEDPDSKNTLVLFGAGFGAVITVVVIVVIKCFCK 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------DVVPPSNRAGTIAGAVIGVLLALVLIGLIIFC-CR 261
                                                                                                                                                                                                                                               1DBADE0931B84C62 CRC64;
                                                                             T LYMPHOCYTE ACTIVATION A
EXTRACELLULAR (POTENTIAL)
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BUTY BOVIN STANDARD; PRT; 526 AA. P18892; 018955; 018959; 0.018959; 0.00V-1990 (Rel. 16, Created) 15-UL-1998 (Rel. 36, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update) BTN1A1 OR BTN.
                                                                                                                                                                                                                                              34589 MW;
                                                                                                                                                                                                                                                                                         65; Conservative
                                                                                                                                                                                                                                   214 2
306 AA;
                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                       DOMAIN
TRANSMEM
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DISULFID
DISULFID
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CARBOHYD
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                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                               CARBOHYD
                                                                                                                                                                                                                                               SEQUENCE
                                                                  SIGNAL
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWL---LS
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10.6%; Score 144; DB 1; Length 526;
l Similarity 22.4%; Pred. No. 0.00015;
63; Conservative 51; Mismatches 121; Indels 46; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBUNIT: SEEMS TO ASSOCIATE WITH XANTHINE DEHYDROGENASE/OXIDASE (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECTFICITY: EXPRESSED IN MAMMARY TISSUE AND SECRETED IN
ASSOCIATION WITH THE MILK-FAT-GLOBULE MEMBRANE DURING LACTATION
SIMILARITY: BELONGS TO THE IMMUNGELOBULIN SUPERFAMILY. BIN/MOG
                                                                                                                                                                                                                                                                                                               CARBOHYDRATE-LINKAGE SITES.

MEDLINE=95293916; PubMed=7775382;
Sato T., Takio K., Kobata A., Greenwalt D.E., Furukawa K.;
Site-specific glycosylation of bovine butyrophilin.";
J. Blochem. 117:147-157(1995).
-i- FUNCTION: MAY FUNCTION IN THE SECRETION OF MILK-FAT DROPLETS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MAY ACT AS A SPECIFIC MEMBRANE-ASSOCIATED RECEPTOR FOR THE ASSOCIATION OF CYTOPLASMIC DROPLETS WITH THE APICAL PLASMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
(COMPLEX)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBFAMILY. SIMILARITY: CONTAINS 1 IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  55 N-LINKED (GLCNAC. . .) (COMPLEX 215 N-LINKED (GLCNAC. . .) (HYBRID) 35 Q -> P (IN REF. 3). (230 E -> D (IN REF. 1). 59276 MW; A14126802BD19284 CRC64;
                             Husaini Y., Snell R.G., Korobko I.V.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Glycoprotein; Immunoglobulin domain; Signal
STRAIN=Holstein-Friesian;
Davey Hww, Ogg S.L., Husaini Y., Snell R.G., Korobko I.
Mather I.H., Wilkins R.H.;
Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                   Seyfert H., Luethen F.;
Submitted (MAR-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL).
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InterPro; IPR001870; Gamma_carbxylse.
InterPro; IPR003006; Ig_MHG.
InterPro; IPR003596; Ig_v.
InterPro; IPR003878; SPRV_domain.
InterPro; IPR003878; SPRV_receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; M35551; AAB39766.1; -.
EMBL; AF005497; AAB62889.1; -.
EMBL; Z93323; CAB07533.1; -.
PIR; A37821; A37821.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam, PF00047; ig, i.
Pfam, PF00622; SPRY; 1.
SMART; SM00406; IGv; 1.
SMART; SM00449; SPRX; 1
                                                                                                                                                          SEQUENCE FROM N.A.
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DOMAIN
CARBOHYD
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CONFLICT
CONFLICT
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Best Local 8
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Gaps

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MEDLINE-89034110, PubMed=2972708;

MEDLINE-80034110, PubMed=2972708;

MEDLINE-80034110
                                                                                                                                                                                                                                                                                                                                                         84 YQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC---KVKKAPGVGNKKIQLTVLLK 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                    141 PSGTRCYVDGSEEI -- GNDFKLKCEPKEGSLPLLYEWQKLSNSQKLPTLWLAEMTSPVIS 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Melanoma;
MEDLINE=92078153; PubMed=1744087;
Medline D.M., Yalle A., Valente P., Cai S., Horigan E., Sasaki M.,
Noonan D.M., Hassell J.R.,
"The complete sequence of perlecan, a basement membrane heparan
sulfare proteoglycan, reveals extensive similarity with laminin A
chain, low density lipoprotein-receptor, and the neural cell adhesion
molecule.";
J. Biol. Chem. 266:22939-22947(1991).
                                                                                                                                                                                                                                                                                                                                                                                    199 VKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVP----PSNRAGTIAGAVIGVLLALVLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                   (POTENTIAL). (POTENTIAL). (POTENTIAL). (POTENTIAL).
                                                                                                                 (POTENTIAL) . (POTENTIAL) .
                                                                                                                                                                (POTENTIAL)
                                                                                                                                                                                                                                                                                                             13;
POTENTIAL)
                                                                                                                                                                                                                                                              Score 136.5; DB 1; Length 740; Pred. No. 0.00094;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JUN-2002 (Rel. 41, Last annotation update)
Basement membrane-specific heparan sulfate proteoglycan core
protein precursor (HSPG) (Perlecan) (PLC).
                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                 82378 MW; F312DC62C4B4A217 CRC64;
                                                                                           (GLCNAC.
(GLCNAC.
(GLCNAC.
                   (GLCNAC.
                                                                                                                                                                  (GLCNAC.
                                                                     (GLCNAC.
                                                                                                                                                                                           (GLCNAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Last sequence update)
                                                                                                                                                                                                                                                                                                               36; Mismatches
N-LINKED
N-LINKED
N-LINKED
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N-LINKED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein precursor (HSPG) (Perlecan)
HSPG2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last seq
15-JUN-2002 (Rel. 41, Last ann
                                                                                                                                                                                                                                                              10.0%;
26.0%;
                                                                                                                                                                                                                                                                                                             47; Conservative
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884
3320
4432
552
552
84
284
3301
337
342
436
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456
750
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780
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SEQUENCE
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                                                                                                                             | : : | | : : | : : | E-----SFPSMSESRNPDEEGLFTVRASVIIRDSSMRNV------SCCIRNLLLGGEK 229
                                              125 FFRODENYEEAIVHLKV--AALGSDPHISMKVQESGEIQLECTSVGWYPEPQVQWRTHRG 182
    KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKC-----EPK----EG 167
                                                                                                SLPLLYEWQKLSNSQKLPTLWLAEMTSPVI ----SVKNASTEYSGTYSCTVKNRVGSDQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mmunoglobulin domain; Glycoprotein; Cell adhesion; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chordata, Craniata, Vertebrata, Euteleostomi,
Cetartiodactyla, Suina, Suidae, Sus.
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                                                                                                                                                                                                                                                                                                                                                                                                        01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-UUN-2002 (Rel. 41, Last annotation update)
Platelet endothelial cell adhesion molecule precursor (PECAM-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WASH A. WASH A. SUDMITTED ALL BARBINGENBANK, DDBJ GATABASES.
-!- FUNCTION: THIS PROTEIN IS A CELL ADHESION MOLECULE EXPRESSES PLATELETS AND AT ENDOTHELIAL CELL INTERCELLULAR UNCTIONS.
-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY.
-!- SIMILARITY: CONTAINS 6 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAINS.
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BAPTELET ENDOTHELIAL CELL ADHESION MOLECULE.

EXTRACELLULAR (POTENTIAL).
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IG-LIKE C2-TYPE DOWAIN 1.
IG-LIKE C2-TYPE DOWAIN 2.
IG-LIKE C2-TYPE DOWAIN 3.
IG-LIKE C2-TYPE DOWAIN 4.
IG-LIKE C2-TYPE DOWAIN 5.
IG-LIKE C2-TYPE DOWAIN 6.
POTENTIAL.
                                                                                                                                                                                             261
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                                                                                                                                                                                                                                                                                                                                                                740 AA
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InterPro, IPR003599, Ig.
InterPro, IPR003006, Ig_MHC.
InterPro, IPR003600; Ig_Ike.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00047; ig; 4.
SMART; SM00409; IG; 2.
SMART; SM00410; IG like; 1.
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sus scrofa (Pig).
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LAMININ EGF-LIKE 1
LAMININ EGF-LIKE 2
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LEFRARAN SULFATE (POTENTIAL)
LEFRARAN SULFATE (POTENTIAL)
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LAMININ EGF-LIKE 3
LEFRARAN SULFATE (POTENTIAL)
LAMININ EGF-LIKE 3
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LEFRARAN SULFATE (POTENTIAL)
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LEFRARAN SULFATE (POTENTIAL)
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LAMININ EGF-LIKE 3
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   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
-:- SUBCELLULAR LOCATION: EXtracellular.
-:- TISSUE SPECIFICITY: FOUND IN THE BASEMENT MEMBRANES.
-:- PTW: CONTAINS THREE HEPARAN SULFATE CHAINS AS WELL AS N-LINKED AND O-LINKED OLIGOACCHARIDES.
-:- SIMILARITY: CONTAINS 10.5 LAMININ EGF-LIKE DOMAINS.
-:- SIMILARITY: CONTAINS 10.5 LAMININ EGF-LIKE DOMAINS.
-:- SIMILARITY: CONTAINS 3 LAMININ DOMAINS IV.
-:- SIMILARITY: CONTAINS 1 LAMININ G-LIKE C2-TYPE DOMAINS.
-:- SIMILARITY: CONTAINS 1 EGF-LIKE DOMAINS.
-:- SIMILARITY: CONTAINS 1 EGF-LIKE DOMAIN.
-:- SIMILARITY: CONTAINS 1 SER DOMAIN.
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LUL-RECEPTOR CLASS A 1.
LUL-RECEPTOR CLASS A 2.
LUL-RECEPTOR CLASS A 3.
LUL-RECEPTOR CLASS A 4.
IGHT C2-TYPE DOMAIN 1.
LAMININ EGF-LIKE 1 (N-TERMINAL).
LAMININ DOMAIN 1V 1 (DOMAIN II.)
LAMININ EGF-LIKE 1 (C-TERMINAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Signal; Basement membrane; Proteoglycan; Repeat; Glycoprotein; Heparan sulfare; Laminin EGF-like domain; Immunoglobulin domain; Extracellular matrix; EGF-like domain.

SIGNAL
22 3707 BASEMENT MEMBRANE-SPECIFIC HEPARAN
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SEQUENCE FROM N.A. (ISOFORM GAMMA)
                                                                                                                                                                                            Helms J.A., Spritz R.A.;
"Mutations of PVRL1, encoding a
molecule/herpesvirus receptor,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL, AF060231, AAC237981, EMBL, AF060231, AAC237981, EMBL, AF022867, AAG1664811, OUR EMBL, AF196768, AAG1664811, UN EMBL, AF196779, AAG1664811, UN EMBL, AF196771, AAG1664811, OUR EMBL, AF196774, AAG1664811, OUR EMBL, AF196769, AAG1664911, UN EMBL, AF196770, AAG1664911, UN EMBL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AF196771; AAG16649.1;
EMBL; AF196772; AAG16649.1;
EMBL; AF196773; AAG16649.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Interpro; IPR003599; Ig.
Interpro; IPR003006; Ig_MHC.
Interpro; IPR003598; Ig_C2.
Interpro; IPR003596; Ig_V.
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 2398
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGD-----ASINVTNLQLSDIGTYQCKVKKAPGVGNKK 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           133 IQLTV---LLKPSGTRCYVDGSE---EIGNDFKLKCEPKEGSLPLLYEWQKLSNSQKLPT 186
                                                                                                                                                                                                                                                                                                                                                -----KGRVH-----FTSNDLK
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015223; 075465; Q9HBE6; Q9HBM2;
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 41, Last annotation update)
15-JUN-2002 (Rel. 41, Last annotation update)
Poliovirus receptor related protein 1 precursor (Herpes virus entry mediator C) (HveC) (Nectin 1) (Herpesvirus Ig-like receptor) (HIGR)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PVRLI OR PRRI OR HVEC.
Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                             85;
                                                                                                                                                                                                                                                           Score 136.5; DB 1; Length 3707; Pred. No. 0.0069; Mismatches 102; Indels 85;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eberle F., Mattei M.-G., Gabert J., Bardin F., Maroc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "CDNA characterization and chromosomal localization of a gene to the poliovirus receptor gene."; Gene 155:261-265(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187 LWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPP 232
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MEDLINE-98279152; PubMed-9616127;
Geraghty R.J., Krummenacher C., Cohen G.H., Eisenberg R.J.,
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Science 280:1618-1620(1998).
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Dubreuil P.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBGUILT: Interacts with HSV glycoprotein D (gD).
SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN (ISOFORMS ALPHA AND DELTA) AND SECRETED (ISOFORM GAMMA).
ALTERNATIVE PRODUCTS: 3 ISOFORMS; ALPHA, DELTA (SHOWN HERE), AND GAMMA, ARE PRODUCED BY ALTERNATIVE SPLICING.
BISEASE: Defects in PYRLI are a cause of cleft lip/palate-ectodermal dysplasia syndrome (CLPEDI). It is responsible for allelic forms known as Margarita island form and Zlotogora-Ogur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENTRY INTO
                                                                                                                                                                                                                                                                                                                                           (ISOFORMS ALPHA AND DELTA), AND DISEASE
                                                                                         Novel, soluble isoform of the herpes simplex virus (HSV) receptor nectini (or prri-HigR-Hvec) modulates positively and negatively susceptibility to hsv infection.";

Virol. 75:5684-5691(2001).

[4]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY: SIMILARITY: COUPLINS 1 IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN. SIMILARITY: COUTAINS 2 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAINS. DATABASE: NAME=PROW, NOTE=PROW 2:45-49(2001); WHWH="http://www.ncbi.nlm.nih.gov/prow/guide/2005693930_g.htm".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dysplasia.";
Nat. Genet. 25:427-430(2000).
Nat. Genet. PROBABLY INVOLVED IN CELL ADHESION. RECEPTOR FOR ALPHAHERPESVIRUS (HSV-1, HSV-2 AND PSEUDORABIES VIRUS) ENTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Transmembrane;
                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 28-517 FROM N.A. (ISOFORMS ALPHA AND DELTA), AND MEDILME=20392395, Pubmed=1093188;
Suzuki K., Hu D., Bustos T., Zlotogora J., Richieri-Costa A., Helms J.A., Spritz R.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a cell-cell adhesion
, in cleft lip/palate-ectodermal
MEDLINE=21256041; PubMed=11356977;
Lopez M., Cocchi F., Avitabile E., Leclerc A., Adelaide J.,
Campadelli-Fjume G., Dubreuil P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        pfam; PF00047; ig; 2.
SMART; SM00409; iG; 3.
SMART; SM00406; IGC; 3.
SMART; SM00406; IGC; 1.
Call adhesion; Immunoglobulin domain; Receptor; Tre
Repeat; Glycoprotein; Signal; Alternative splicing
SIGNAL: 30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VQTQHTPRTMQVHLTVQVPPKIYDISNDMTINEGTNVTLTCLATGKPEPAISWRHISPSA 173
                                                                                                                                                        SEQUENCE FROM N.A., AND SEQUENCE OF 32-62.

MEDLINE=99175207; PubMed=10075727;
Funateu N., Miyata S., Kumanogoh H., Shigeta M., Hamada K., Endo Y.,
Sokawa Y., Maekawa S.;
"Characterization of a novel rat brain glycosylphosphatidylinositol-
anchored protein (Kilon), a member of the IgLON cell adhesion molecule
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5 LCFVLLCGVADLTRSLSITTPEQMIEK---AKGETAYLPCRFTLGPEDQGPLDIEWLLSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LAAVLLSLCSCLPAGOSVDFPWAAVDNMLVRKGDTAVLRCYL----EDGASKGAWLNRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S-----IIFAGGDK-----WSVDPRVSIST--LNKRDYSLQIQNVDVTDDGPYTCS
                                      Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                         by a GPI-anchor
                                                                                                                                                                                                                                                                                                                                                                                                                                     PTM: GLYCOSYLATED.
SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY. IGLON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AB017139; BAA75649.1; -.
InterPro; IPR003008; Ig_AHC.
InterPro; IPR003598; Ig_c2.
InterPro; IPR003500; Ig_like.
Pfam; PF00047; ig; 3.
SNART; SM00440; Ig_like; 1.
SNART; SM00408; IGc2; 2.
Immunoglobulin domain; Cell adhesion; Glycoprotein; GPI-anchor; SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KILON PROTEIN.
REMOVED IN MATURE FORM (POTENTIAL)
IG-LIKE C2-TYPE DOMAIN 1.
IG-LIKE C2-TYPE DOMAIN 2.
IG-LIKE C2-TYPE DOMAIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
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. .) (POTENTIAL)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -!- SIMILARITY: CONTAINS 3 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9.7%; Score 131.5; DB 1; Length 348; 21.3%; Pred. No. 0.00096;
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IG-LIKE C2-TYPE DOMAIN 1.
IG-LIKE C2-TYPE DOMAIN 3.
POTENTIAL.
POTENTIAL.
POTENTIAL.
N-LINKED (GLCNAC. ..) (POTIN-LINKED (GLCNAC. 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122 VKKAPGVGNKKIQLIVLLKP-----SGTR----C---
                                                                                                                                                                                                                                                                                                                                                                                         membrane
                                                                                                                                                                                                                                                                                                         family.";
J. Biol. Chem. 274:8224-8230(1999).
-!- FUNCTION: CELL-ADHESION (POTENTIAL).
-!- SUBCELLULAR LOCATION: Attached to the membrane
-!- ISSUE SPECIFICITY: HIGHLY EXPRESSED IN BRAIN.
          Kilon protein precursor (Kindred of IgLON).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24 348 47 119 119 147 232 298 291 67 112 67 112 67 112 67 112 67 112 67 112 67 112 67 112 67 112 67 1149 N. 288 N. 288 N. 37858 MW; 3
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                                                                                                                 NCBI_TaxID=10116;
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CARBOHYD
SEQUENCE
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DISULFID
CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PGRQQQQEEEDLQKLSLQPPYYDLGVSPSYHPSVRTTEPRG
ECP (IN ISOFORM ALPHA).
MISSING (IN ISOFORM ALPHA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FPYTPSPPEHGRRAGPVPTAIIGGVAGSILLVLIVVGGIVV
ALRRRRHTFKGDYSTKKHVYGNGYSKAGIPQHHPPMAQNLQ
YPDDSDDEKKAGPLGGSSYEEEEEEEGGGGGGRRKVGGPHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -> KPRPQRGLGSAARLLAGTVAVFLILVAVLTVFFLYNRQ
QKSPPETDGAGTDQPLSQKPEPSPSRQSSLVPEDIQVVHLD
POLIOVIRUS RECEPTOR RELATED PROTEIN 1.
EXTRACELULAR (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
IG-LIKE V-TYPE DOMAIN.
IG-LIKE C2-TYPE DOMAIN 1.
IG-LIKE C2-TYPE DOMAIN 2.
POLY-GLU.
POLY-GLU.
POLY-GLY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC. ..) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EFPYTPSPPEHGRRAGPV -> AFCOLIYPGKGRTRARMF (IN ISOFORM GAMMA).
MISSING (IN ISOFORM GAMMA).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTDVVLHCSFA------NPLPSVKITQVTWQKSTNGSKQNVAIYNPSMGVS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        259 YLQRMDVKLTCKADANPPATEYHWTTLNGSLPKGVEAQNRTLFFKGPINYSLAGTYICEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | :|: | ::: | | ::: | | : | | : | | | : | | | : | | | ::: | | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: | ::: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       79 IYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKKAPGVGNKKIQ--LT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         86; Indels 158; Gaps
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Pred. No. 0.0014;
50; Mismatches 86; Indels 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DF34C8AEC893EE6D CRC64;
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(GLCNAC. . .)
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(GLCNAC. . .)
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Last sequence update)
Last annotation update)
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N-LINKED
N-LINKED
N-LINKED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             459
517 AA;
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Best Local Similarity
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Q9Z0J8;
30-MAY-2000
30-MAY-2000
15-JUN-2002
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SEQUENCE FROM N.A.
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                     174 KPFENGQYLDIYGITRDQAGEYECSAENDVSFPDVKKVRVVVNFAPTIQEIKSGTVTPGR 233
                                                                                      SGLIRCE-GAGVPPPAFEWYKGEKRLFNGQQ-GIIIQNFSTRSILTVTNVTQEHFGNYTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Porcine HveC, a member of the highly conserved HveC/nectin 1 family, is a functional alphaherpesvirus receptor."; Virology 2811315-328(2001).
-!- FUNCTION: PROBABLY INVOLVED IN CELL ADHESION. RECEPTOR FOR ALPHAHERPESVIRUS (HSV-1, HSV-2 AND PSEUDORABIES VIRUS) ENTRY INTO
                                                            DFKLKCEPKEGSLPLLYEWQK----LSNSQKLPTLWLAEMTSPVISVKNASTEYSGTYSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -:- SUBCELLULAR LOCATION: Type I membrane protein D (gD) (By similarity). -:- SUBCELLULAR LOCATION: Type I membrane protein. -:- SIMILARITY: BELONGS TO THE IMMUNOGLOBULIN SUPERFAMILY. -:- SIMILARITY: CONTAINS I IMMUNOGLOBULIN-LIKE V-TYPE DOMAIN. -:- SIMILARITY: CONTAINS 2 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAINS.
                                                                                                                                                                                                                                                                                                                                16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Polivirus receptor related protein 1 precursor (Herpes virus entry mediator C) (Hvec) (Nectin 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEIN 1.
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InterPro; IPR003599; Ig.

InterPro; IPR003599; Ig.

InterPro; IPR003599; Ig.

InterPro; IPR003596; Ig_UNC.

InterPro; IPR00410; Ig_Inke; Ig_UNC.

INTERPRO; INTERPRO; IG_INKE; Ig_UNC.

INTERPRO; INTERPRO; IG_INKE; Ig_UNC.

INTERPRO; INTERPRO; IG_INC.

INTERPRO; INTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sus scrofa (Pig).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Cetartiodactyla, Suina, Suidae, Sus.
                                                                                                                                                                     292 VAANKLGTTNASLPLN--PPSTAQYGITGSACDLFSCWSLALTLSSVI 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE=21176378; PubMed=11277703;
Milne R.S.B., Connolly S.A., Krummenacher C., Eisenberg R.J.,
Cohen G.H.;
                                                                                                                                              TVKNRVGSDQCLLRLDVVPPSNRAGTIAGAVIGVL----LALVLIGLI
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EXTRACELLULAR (POTENTIAL)
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IG-LIKE V-TYPE DOMAIN,
IG-LIKE C2-TYPE DOMAIN 1.
IG-LIKE C2-TYPE DOMAIN 2.
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79 IYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKKAPGVGNKKIQ--LT 136
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             199 RNPNGTVTVISRYRLVPSREDHRQSLACIVNYHMDRFRESLTLNVQYEPEVTLEGFDGNW 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 259 YLQRMDVKLTCKADANPPATEYHWTTLNGSLPKGVEAQNRTLFFRGPINYSMAGTYICEA 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89 VLAPY----RERVEFLRPSFT--DGTIRLSRLELEDEGVYICEFATFP-AGNRESQLNLT 141
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MEDLINE=92112994; PubMed=1730768;
Kallunki P., Tryggwason K.;
Human basement membrane heparan sulfate proteoglycan core protein: a
467-kD protein containing multiple domains resembling elements of the
10w density lipoprotein receptor, laminin, neural cell adhesion
molecules, and epidermal growth factor.";
J. Cell Biol. 116:559-571(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VLLKPSGTRCYVDGSEEI - - - - GNDFKL - - - KCEPKEGSLPLLYEWQK - - - - - - - -
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Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
N-LINKED (GLCNAC. .) (POTENTIAL).
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P98160, Q16287.
01-0CT-1996 (Rel. 34, Last sequence update)
01-0CT-1996 (Rel. 34, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Basement membrane-specific heparan sulfate proteoglycan core
Brotein precursor (HSPG) (Perlecan) (PLC).
HSPG2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              9.5%; Score 129.5; DB 1; Length 515;
                                                                                                                                                                                                                                                                                                                                                                              524 NW; BFAB00320DDE3785 CRC64; 57047 MW; BFAB00320DDE3785 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Pred. No. 0.0023;
50; Mismatches 86;
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4447
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                                                                                                                                                                                                                                                                                                                                                                                                       515 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
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TISSUE=Skin, and Colon;
MEDLINE=92235084; PubMed=1569102;
Murdoch A.D., Dodge G.R., Cohen I., Tuan R.S., Iozzo R.V.;
Murdoch A.D., todge G.R., Cohen I., Tuan R.S., Iozzo R.V.;
Primary structure of the human heparan sulfate proteoglycan from basement membrane (HSPG2/perlecan). A chimeric molecule with multiple domains homologous to the low density lipoprotein receptor, laminin, neural cell adhesion molecules, and epidermal growth factor.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           its promoter.";
Proc. Natl. Acad. Sci. U.S.A. 90:10404-10408(1993).

-!-FUNCTION: This protein is an integral component of basement membranes. It is responsible for the fixed negative electrostatic charge and is involved in the charge-selective ultrafiltration properties. It serves as an attachment substrate for cells.

-:-SUBUNIT: Purified perlecan has a strong tendency to aggregate in dimers or stellate structures. It interacts with other basement
                                                                                                                                                                                                                                                                                  Yi H.F., Tozzo R.V.;
"Heparan sulfate proteoglycan of human colon: partial molecular cloning, cellular expression, and mapping of the gene (HSPG2) to the Short arm of human chromosome 1.";
Genomics 10:673-680(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=92120660; PubMed=1685141; Kastila M., Shows T.B., Kallunki P., Eddy R.L., Byers M.G., Kestila M., Shows T.B., Tryggvason K.; Cloning of human heparan sulfate proteoglycan core protein, assignment of the gene (HSPC2) to 1p36.1-->p35 and identification of a BamHI restriction fragment length polymorphism."; dentification of genomics 11:389-396(1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=94052171; PubMed=8234307;
Cohen I.R., Graessel S., Murdoch A.D., Iozzo R.V.;
"Structural characterization of the complete human perlecan gene and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             membrane components such as laminin, prolargin and collagen type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -:- SUBCELLULAR LOCATION: EXELACEILULAR.
-:- TISSUE SPECIFICITY: FOUND IN THE BASEMENT MEMBRANES.
-:- FTM: CONTAINS THREE HEPARAN SULFATE CHAINS AS WELL AS N-LINKED AND O-LINKED OLIGOSACCHARIDES.
-:- SIMILARITY: CONTAINS 4 LDL-RECEPTOR CLASS A DOMAINS.
-:- SIMILARITY: CONTAINS 10.5 LAMININ EGF-LIKE DOMAINS.
-:- SIMILARITY: CONTAINS 3 LAMININ DOMAINS IV.
-:- SIMILARITY: CONTAINS 2 IMMUNOGLOBULIN-LIKE C2-TYPE DOMAINS.
-:- SIMILARITY: CONTAINS 4 EGF-LIKE DOMAINS.
-:- SIMILARITY: CONTAINS 1 EAMININ G-LIKE DOMAINS.
-:- SIMILARITY: CONTAINS 1 ESP-LIKE DOMAINS.
                                                                                                                                                                                                                                                                   Dodge G.R., Kovalszky I., Chu M.L., Hassell J.R., McBride O.W.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              $76436; AAB21121.2; -.
122078; -; NOT_ANNOTATED_CDS.
P00740; 1EDM.
                                                                                                                                                        Biol. Chem. 267:8544-8557(1992)
                                                                                                                                                                                                                     TISSUE=Colon;
MEDLINE=91365376; PubMed=1679749;
                                                                                                                                                                                                   SEQUENCE OF 1018-1472 FROM N.A.
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EMBL; M85289; AAA52700.1; -.
EMBL; M64283; AAA52699.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE OF 1-21 FROM N.A.
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MIM; 142461; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , P98160;
                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=Fibrosarcoma;
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HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL;
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InterPro; IPR000561; EGF-like.

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LDL-RECEPTOR CLASS A 1.

LDL-RECEPTOR CLASS A 2.

LDL-RECEPTOR CLASS A 3.

LDL-RECEPTOR CLASS A 4.

IG-LIKE C2-TYPE DOMAIN 1.

LAMININ BGF-LIKE 1 (N-TERNINAL).

LAMININ BGF-LIKE 2.

LAMININ BGF-LIKE 2.

LAMININ BGF-LIKE 3.

LAMININ BGF-LIKE 4 (INCOMPLETE).

AMININ BGF-LIKE 5 (N-TERMINAL).

AMININ BGF-LIKE 5 (N-TERMINAL).

AMININ BGF-LIKE 5 (N-TERMINAL).

AMININ BGF-LIKE 6.

ININ BGF-LIKE 6.

ININ BGF-LIKE 7.

ININ BGF-LIKE 8.

ININ BGF-LIKE 8.

ININ BGF-LIKE 9.

ININ BGF-LIKE 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Signal; Basement membrane; Proteoglycan; Repeat; Glycoprotein; Heparan sulfate; Laminin EGF-like domain; Immunoglobulin domain; Extracellular matrix; EGF-like domain.
1 POTENTIAL.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BASEMENT MEMBRANE-SPECIFIC HEPARAN SULFATE PROTEOGLYCAN CORE PROTEIN.
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DOMAIN 3.
DOMAIN 4.
DOMAIN 5.
DOMAIN 6.
DOMAIN 6.
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                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00022; EGF 1; 9.
PROSITE; PS01186; EGF 2; 5.
PROSITE; PS01248; LAMININ TYPE EGF; 11.
PROSITE; PS50025; LAM G DOMAIN; 3.
PROSITE; PS50068; LDLEA 1; 4.
PROSITE; PS50068; LDLEA 2; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IG-LIKE
IG-LIKE
IG-LIKE
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IG-LIKE
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InterPro; IPR000742; EGF_2.
InterPro; IPR001438; EGF_II.
InterPro; IPR003596; Ig_MHC.
InterPro; IPR002172; LDL recept_A.
InterPro; IPR000034; Luminin B.
InterPro; IPR001791; Laminin B.
InterPro; IPR001791; Laminin GF.
InterPro; IPR001791; Laminin GF.
                                                                                                                          Pfam; PF00008; EGF; 4. —
Pfam; PF00047; 197; 22.
Pfam; PF00053; laminin B; 3.
Pfam; PF00054; laminin EGF; 7.
Pfam; PF00054; laminin G; 3.
Pfam; PF00159; laminin G; 3.
                                                                                                                                                                                                                                        В; 3.
                                                                                                                                                                                                                                     ProDom; PD003031; Laminin B; SMART; SM00180; EGF Like; 8. SWART; SM00101; EGF 1ike; 8. SWART; SM00408; IGGZ; 22. SWART; SM00192; LDLa; 4. SWART; SM00281; LamB; 3. SWART; SM00281; LamB; 3. SWART; SM00200; SEA; 1.
                                                                                                                                                                                                                          PRINTS; PR00010; EGFBLOOD
                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS50024; SEA; 1
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3113 PPTVSVLPEGP-VWV----KVGKAVTLECVSAGEPRSSA-----RWTRISSTPAKLEQRT 3162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   136 --TVLLKPSGTRCYVDGSEEIGNDFKLKC----EPKEGSLPLLYEWQKLSNS-QKLPTLW 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80 YDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKKAPGVGNKKIQL----
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                                                                                                                                                                 EGF-LIKE 1.
EGF-LIKE 2.
LAMININ G-LIKE 2.
LAMININ G-LIKE 3.
EGF-LIKE 3.
EGF-LIKE 4.
LAMININ G-LIKE 3.
HEPARAN SULPATE (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                     MEDIATES MOTOR NEURON ATTACHMENT (POTENTIAL).
BY SIMILARITY.
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IG-LIKE C2-TYPE DOMAIN 14.
IG-LIKE C2-TYPE DOMAIN 15.
IG-LIKE C2-TYPE DOMAIN 16.
IG-LIKE C2-TYPE DOMAIN 16.
IG-LIKE C2-TYPE DOMAIN 17.
IG-LIKE C2-TYPE DOMAIN 19.
IG-LIKE C2-TYPE DOMAIN 20.
IG-LIKE C2-TYPE DOMAIN 20.
IG-LIKE C2-TYPE DOMAIN 21.
IG-LIKE C2-TYPE DOMAIN 21.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              189 LAEMTS-PVISVKNASTEYSGTYSCTVKNRVGSDQ 222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 9.5%; Score 128.5; DB Best Local Similarity 23.3%; Pred. No. 0.04; Matches 50; Conservative 35; Mismatches
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Job time : 11 secs
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3924
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Q9jka5 mus musculu Q9nx42 homo sapien Q96iq7 homo sapien Q9cva4 mus musculu O95791 homo sapien

095791 homo sapien 091664 xenopus lae

092109 mus musculu 099495 gallus gallu 09944 gallus gallu 09941 gallus gall 099414 mus musculu 09614 mus musculu 09553 homo sapien 09551 homo sapien 09550 homo sapien 09550 homo sapien 09550 mus musculu 09630 mus musculu 09632 mus musculu 09432 mus musculu 091559 musuu 091559 mus musculu 091559 musculu

Scoring table:

Searched:

Database

Perfect score:

Run on:

Sequence:

O8vc39 mus musculu O98918 gallus gall O76518 caenorhabdi 09y5b2 homo sapien 09y279 homo sapien

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TISSUE=LIVER,

WEDLINE=99422053; PubMed=10490761;

WEDLINE=99422053; PubMed=10490761;

WEDLINE=99422053; PubMed=10490761;

A Fechiner H., Haack A., Wang H., Wang X., Eizema K., Pauschinger M., Schoemaker R.G., van Veghel R., Houtsmuller A.B., Schultheiss H.-P.,

Lamers J.M.J., Poller W.;

Lamers J.M.J., Poller W.;

Lamers J.M.J., Poller W.;

TEXPRESSION of Coxsackie-adenovirus-receptor and alpha v-integrin does not correlate with adenovector targeting in vivo indicating anatomical vector barriers ".

TEXPRESSION of Coxsackie-adenovirus-receptor and alpha v-integrin does not correlate with adenovector targeting in vivo indicating anatomical vector barriers ".

TEXPRESSION of Coxsackie-adenovirus-receptor and alpha v-integrin does not correlate with adenovector targeting in vivo indicating anatomical vector barriers ".

TEXPRESSION of Coxsackie-adenovirus anatomical particles and the complex of the correlation of the coxsackie-adenovirus anatomical anatomi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sus scrofa (Pig).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi;
Mammalia, Butheria, Cetartiodactyla, Suina; Suidae, Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 319;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Coxsackie-adenovirus-receptor homolog (Fragment).
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99.2%; Pred. No. 3.2e-112;
ive 1; Mismatches 1;
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Q922D5
Q9JKA5
Q9NX42
Q96IQ7
Q9CVA4
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Q98918
O76518
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Q925F2
Q95KI3
Q96T50
Q96AP7
Q91665
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Q92109
Q9YGV5
Q9PWR4
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Q9D2J4
Q9D0T4
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073716
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Best Local Similarity 99.2
Matches 258; Conservative
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   SEQUENCE FROM N.A.
                                                                                                                           NCBI_TaxID=9823;
   RESULT 1
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Q9r066 rattus norv
Q91w66 mus musculu
Q9dbj8 mus musculu
Q8wwtf homo sapien
Q90y50 brachydanio
Q99k50 mus musculu
Q9h6b4 homo sapien
Q8r373 mus musculu
Q82085 mus musculu
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Q9tu80 canis famil
Q9ukv4 homo sapien
                                                                                                                                                                                                                     July 9, 2003, 12:42:53; Search time 32 Seconds (without alignments) 1680.572 Million cell updates/sec
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                                                                                                                                                                                                                                                                                                                                             US-09-899-634C-2
1359
1 MALLLCFVLLCGVADLTRSL.......AVIGVLLALVLIGLIIFCCR 261
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                                 GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            671580 segs, 206047115 residues
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                         OM protein - protein search, using sw model
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Q9TU80
Q9R067
Q9R066
Q9R066
Q9DBJB
Q8WWT7
Q9OYS0
Q9OYS0
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sp_bacteria:*
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sp_organel:*
sp_plant:*
sp_plant:*
sp_rodent:*
sp_rod
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Gapop 10.0 , Gapext 0.5
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Maximum DB seq length: 200000000
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Match Length
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24.9
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227.2
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1341 1270 1234 1233 1233 1233 1216 1216 676 676 677 641 378.5 3366.5 338

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121 KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN 180
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STRAIN=BREED GERMAN SHEPHERD; TISSUE=LIVER;
MEDLINE=99422053; PubMed=10490761;
MEDLINE=994205053; PubMed=10490761;
Schoemaker H., Haack A., Wang H., Wang X., Eizema K., Pauschinger M.,
Lamers J.M.J., Poller W.;
Lamers J.M.J., Poller W.;
Expression of Coxsackie-adenovirus-receptor and alpha v-integrin does not correlate with adenovector targeting in vivo indicating anatomical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MALLLRFVILCGVADFTRSLSITTPEQMIEKAKGETAYLPCKFTLSPEDQGPLDIEWLLS
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                                                                                                                                                                                                                                                                                                                                                                                      Canis familiaris (Dog).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Carnivora, Fissipedia, Canidae, Canis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   319 AA; 35422 MW; 85C63A6EC7986965 CRC64;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
HCAR2.
                                                                                                                                                                                                                                                                 01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                           Coxsackie-adenovirus-receptor homolog (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cch 92.3%; Score 1254; DB 6; al Similarity 91.2%; Pred. No. 2.1e-104; 238; Conservative 9; Mismatches 14;
                                                                                                                                                                                                            319 AA
                                                                                                                                                                                                            PRT;
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EMBL; AF109645; AAF01256.1; -
InterPro; IPR003599; Ig c2.
InterPro; IPR003600; Ig_like.
InterPro; IPR003006; Ig_MHC.
Pfam; PF00047; ig; 2.
SWART; SM00410; IG 12; 1.
SWART; SM00410; IG 12; 1.
Immunoglobulin domain; Receptor.
NON_TER 319 319
PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9615;
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Matches
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Q9TU80
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                                                                                                                     PADNQKVDQVIILYSGBKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLOLSDIGTYQC 120
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                                        MALLLREVILCGVADITRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDOGPLDIEWLLS
                                                                                                                                                                                                                                           KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN
                                                                                                                                                                                                                                                                             KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN
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Ol-MAR-2002 (TrEMBLrel. 20, Last sequence update)
Ol-MAR-2002 (TrEMBLrel. 20, Last sequence update)
Ol-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Coxsackie virus and adenovirus receptor BCAR.
Bos taurus (Bovine).
Box taurus (Bovine).
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovines Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thosten I., Keyaerts E., Lindberg M., Van Ranst M.;
Thosten I., Keyaerts E., Lindberg M., Van Ranst M.;
Thosten I., Keyaerts E., Lindberg M., Van Ranst M.;
Tadenovirus receptor.";
Biochem. Biophys. Res. Commun. 288:805-808(2001).
R EMBL; AY033651; AAK57804.1;
R InterPro; IPR003599; Ig.
R InterPro; IPR003599; Ig.
R InterPro; IPR003600; Ig_like.
R InterPro; IPR004090; Ig_like.
R Pfem, PF0047; Ig; 2.
SMART; SM00409; IGC2; 2.
R SMART; SM00409; IGC2; 2.
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39261 MW; 731B7384A786BB04 CRC64;
                                                                                                                                                                344 AA; 38030 MW; D436498820D8B9B7 CRC64;
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Coxsackie-adenovirus-receptor homolog (Fragment).
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EMBL, AF109644; AAF01255.1;

INTERPYO; IPR003698; Ig. c2.

INTERPYO; IPR003600; Ig. like.

InterPYO; IPR003006; Ig. MHC.

SMART; SM00408; IG.2.

Immunoglobulin domāin; Receptor.

NON TER

SEQÜENCE 358 AA; 39261 MW; 7311
 vector barriers.";

Gene Ther. 6:1520-1535 (1999).

Gene Ther. 6:1520-1535 (1999).

InterPro; IPR003598; Ig_C2.

InterPro; IPR003600; Ig_Like.

InterPro; IPR003006; Ig_MHC.

Pfam; PF00047; ig; 2.

SWART; SW00410; IGC2: 1.

Immunoglobulin domāin; Receptor.
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                                                                                                                                                                                                          Best Local Similarity 89.69
Matches 233; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
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SEQUENCE
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Q9R066;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PADNQKVDQVIILYSGDKIYDDYYPDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEBIGNDFKLKCEPKEGSLPLLYEWQKLSN 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA 240
                                                                                                   MEDLINE=99422053; PubMed=10490761; Fechner H., Haack A., Wang H., Wang X., Eizema K., Pauschinger M., Schoemaker R.G., van Veghel R., Houtsmuller A.B., Schultheiss H.-P., Lamers J.M.J., Poller W.; "Expression of Coxsackie-adenovirus-receptor and alpha v-integrin does not correlate with adenovector targeting in vivo indicating anatomical vector barriers."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=99422053; PubMed=10490761; Pechner H., Haack A., Wang H., Wang X., Eizema K., Pauschinger M., Schoensker R.G., van Veghel R., Houtsmuller A.B., Schultheiss H.-P., Liamers J.M.J., Poller W.; Eizemers J.M.J., Poller W.; Expression of Coxsackie-adenovirus-receptor and alpha v-integrin does not correlate with adenovector targeting in vivo indicating anatomical
                                                                                                                                                                                                                                                                                                                                                                                                                                                              MALLICEVLLCGVVDFARSLSITTPEEMIEKAKGETAYLPCKFTLSPEDQGPLDIEWLIS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                                                                                                                                                                                                                                                     SEQUENCE 344 AA; 38097 MW; BEF3722E96C697AA CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Coxsackie-adenovirus-receptor homolog (Fragment).
                                                                                                                                                                                                   Gene Ther. 6.1520-1535(1999).

EMBL, AF124598, AAD31772.1; -
InterPro; IPR003598; Ig_c2.
InterPro; IPR003600; Ig_like.
InterPro; IPR003006; Ig_MHC.
Pfam; PF00047; ig; 2.
SMART; SM00410; IG_2; 1.
IMMRT; SM00410; IG_like; 1.
IMMRT; SM00410; IG_like; 1.
NON_TER 344 344
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN=WISTAR; TISSUE=LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 89.3%
Matches 233; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                         SEQUENCE FROM N.A.
                                         NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KVKKAPGVANRKFLLTVLVKPSGTRCFVDGSGEIGNDFKLKCEPKEGSLPLQYEWQKLSD 180
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MEDLINE=99422053; PubMed=10490761;
MEDLINE=99422053; PubMed=10490761;
Schoemaker H., Haack A., Wang H., Wang X.; Eizema K., Pauschinger M.,
Schoemaker R.G., van Veghel R., Houtsmuller A.B., Schultheiss H.-P.,
Lamers J.M.J., Poller W.;
"Expression of Coxsackie-adenovirus-receptor and alpha v-integrin does
not correlate with adenovector targeting in vivo indicating anatomical
                                                                                                                                                                                                 1 MALLICEVILCGVADFTSSLSITTPEQRIEKAKGETAYLPCKFTLEPEDGGPLDIEWLIS
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
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0
90.7%; Score 1233; DB 11; Length 344; 89.6%; Pred. No. 1.8e-102; ive 14; Mismatches 13; Indels 0
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01-JUN-2001
01-JUN-2001
01-DEC-2001
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                                               MALLICEVILCGVADFTSSLSITTPEQRIEKAKGETAYLPCKFTLEPEDQGPLDIEWLIS
                                                                         PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
                                                                                  KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN
                                                                                                                      SOKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA
                                                                                                                                                         1 MALLICFVILCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PADNOKVDOVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 PSDNQ1VDQVIILYSGBKIYDNYYPDLKGRVHFTSNDVKSGBASINVTNLQLSDIGTYQC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SQKLPTLWLAEMTSPVISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIA
                                     1 MALLICEVILCGVADLIRSLSITIPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS
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                   Gaps
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Length 358;
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                   Indels
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TISSUB=COLON;
Straubberg R.;
Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; BCOJ6457; AAH16457.1;
InterPro; IPR003006; Ig_MHC.
Pfam; PF00047; ig; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                           352 AA; 38843 MW; 2BD8CBD25D8CE123 CRC64;
                                                                                                                                                                                                                                                         Q91W66;

01-DEC-2001 (TrEMBLrel. 19, Created)

01-DEC-2001 (TrEMBLrel. 19, Last sequence update)

01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
                   13;
                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               16;
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88.1%; Pred. No. 6.3e-101;
ive 15; Mismatches 16;
         Pred. No. 1.9e-102;
                                                                                                                                                                                                                                                                                             Coxsackievirus and adenovirus receptor.
Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAVIGVLLALVLIGLIIFCC 260
                                                                                                                                                                                              GAVIGVLLALVLIGLIIFCC 260
         89.68;
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Matches 229; Conservative
Query Match
Best Local Similarity 89.61
Matches 233; Conservative
                                                                                                                                                                                                                                                  PRELIMINARY;
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SEQUENCE FROM N.A.

RAMAI STAIN=C57BL/G1 TISSUB-LIVER;

KRAWAI J., Shibata K., Yoshino M., Itoh M., Ishii Y.,

KRAWAI J., Shibata K., Yoshino M., Itoh M., Ishii Y.,

RAMAI J., Shibata K., Yoshino M., Itoh M., Ishii Y.,

Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,

Alawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,

Saito T., Oazaki Y., Golobori T., Bono H., Kasukawa T., Saito R.,

Kadora K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

Rasis K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,

Kuchl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,

Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,

Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,

Blake J., Bolfelli D., Bolyuga N., Carninci P., de Bonaldo M.F.,

Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,

Austrincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Oarchoope P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,

Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,

Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,

Suzuki H., Toyo-oka K., Wang K.H., Waitz C., Whittaker C., Wilming L.,

M. Wonshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEWQKLSN
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Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Functional annotation of a full-length mouse cDNA collection.";
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                                                                                                (TrEMBLrel. 17, Last sequence update) (TrEMBLrel. 19, Last annotation update)
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88.1%; Pred. No. 6.6e-101;
ive 15; Mismatches 16;
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366
                                                                                                                                                                           Coxsackievirus and adenovirus receptor
                                                                   Created)
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EMBL; AK004908; BAB23660.1; -.
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InterPro; IPR003598; Ig_c2.
InterPro; IPR003600; Ig_like
InterPro; IPR003006; Ig_MHC.
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SMART; SM00408; IGG2; 2.
SMART; SM00410; IG_like; 1.
Immunoglobulin domain.
SEQUENCE 366 AA; 40078 My
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Matches 229; Conservative
   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AKOU4900; ..._
MGD; MGI:1201679; Cxadr.
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                                                                                                                                                                                                                                               (Mouse)
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PADNOKVDQVIILYSGDKIYDDYYPDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 PADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC 120
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MALLICFVILCGVVDFARSLSITTPEEMIEKAKGETAYLPCKFTLSPEDQGPLDIEWLIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 LLLCFVLL-----CGVADLTRSLSIT-TPEQMIEXAKGETAYLPCRFTLGPEDQGPLDIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  57 WLLSPADNOKVDOVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 TYQCKIKKVPGIASRKYLLTVMVRPSKPKCSAEGQTYVGKNMVLKCSSVEGTQPMEYIWE
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                                                                                                                                                                                                                                                                                                                                                                                         1 MALLLCFVLLCGVADLTRSLSITTPEQMIEKAKGETAYLPCRFTLGPEDQGPLDIEWLLS
                                                                                                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKLKCEPKEGSLPLLYEW 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
Cyprinidae; Danio.
NCBI_TaxID=7955;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cusack S., "Dimeric structure of the coxsackievirus and adenovirus receptor
                                                                                                                                                                                                                                                                                                                                12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13;
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45.8%; Pred. No. 6.5e-51;
Live 57; Mismatches 73; Indels 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE=20535037; PubMed=11080637;
van Raaij M.J., Chouin E., van der Zandt H., Bergelson J.M.,
                                                                                                                                                                                                                                                                  Length 200;
                                                                                                                                                                                                                                                                                                                             19; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    372 AA; 40664 MW; C363B71E7601C73A CRC64;
                                                                                                                                                                                                   200 AA; 22370 MW; 43FDB19DF6A7FEB8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DM-2002 (TrEMBLrel. 21, Last annotation update)
Coxsacklevirus and adequovirus receptor-like protein.
                                                                                                                                                                                                                                                           ;; Score 676; DB 4;
;; Pred. No. 8.8e-53;
12; Mismatches 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           372 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Brachydanio rerio (Zebrafish) (Zebra danio)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       domain at 1.7 A resolution.";
Structure 8:1147-1155(2000).
InterPro; IPR003600; Ig_like.
InterPro; IPR003006; Ig_MHC.
Pfam, PF00047; ig; 1.
SMART; SM00409; IG; 1.
SMART; SM00410; IG_like; 1.
                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 75.4%;
Matches 132; Conservative 1.
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Matches 121; Conservative
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                                                                                                                                                                     Receptor.
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 KVKKAPGVANKKIHLVVLVKPSGARCYVDGSEEIGSDFKIKCEPKEGSLPLQYEWQKLSD 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dorner A., Xiong D., Yajima T., Knowlton K.U.,

"A soluble coxsackie adenovirus receptor is elevated in Coxsackie infected mice.",

Submitted (JAN-2002) to the EMBL/GenBank/DDBJ databases.

EMBL, AY072912, AAL6880.1;

InterPro, IPR003599, Ig.

InterPro, IPR003600; Ig_like.
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Dorner A., Xiong D., Yajima T., Knowlton K.U.;
"A soluble coxsackie adenovirus receptor is elevated in Coxsackie infected mice.";
                                                                                                                                                                                                                                                                                                                                                                               Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
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Mammalia, Butheria, Primates, Catarrhini, Hominidae, Homo.
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67.8%; Score 921; DB 4; Length 252;
Best Local Similarity 83.4%; Pred. No. 1.2e-74;
Matches 176; Conservative 8; Mismatches 13; Indels
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                                                                                                                                                                                                                       01-MAR-2002 (TrEMBLrel. 20, Last sequence update) 01-JUN-2002 (TrEMBLrel. 21, Last annotation update) Coxsackie-adenovirus-receptor isoform CAR4/7.
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                                                                                                                                    252 AA
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01-MAR-2002 (TrEMBLrel. 20, Last seg
01-JUN-2002 (TrEMBLrel. 21, Last ann
                                                                                                                                                                                               Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00047; ig; 1. SMART; SM00409; IG; 1. SMART; SMO0410; IG_like; 1.
                                                                                                                          PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606;
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BC009371; AAH09371.1;
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Best Local Similarity
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                                                                                                                                                        Query Match
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Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S., Okitani R., Ota T., Suzuki Y., Obayashi M., Nishi T., Shibahara T., Tanka T., Nakamura Y., Isogai T., Sugano S., "NEDO human cDNA sequencing project:", "NEDO human cDNA sequencing project:", Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.
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                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                      Eukaryota, Metaza, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                      47.2%; Score 641; DB 11; Length 164;
86.6%; Pred. No. 9.3e-50;
tive 6; Mismatches 13; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens (Human).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eutele
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-WAR-2001 (TrEMBLrel. 16, Last sequence update)
01-WAR-2002 (TrEMBLrel. 20, Last annotation update)
CDNA: FLJ22415 fis, clone HRC08561 (Hypothetical 41.3 kDa
                                                                                                                                                                                                                                          Straubberg R.;
Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
Submitted (MAR-2001) to the EMBL, 9304689.
HSPP; P33681; 1DR9.
InterPro; IPR003599; Ig.
InterPro; IPR003506; Ig-MHC.
Pfam; PF00047; Ig; 1.
SMART; SM00409; IG; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Strausberg R.;
Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; AK026068; BAB15347.1; -
                                                                                                                                                                                                                                                                                                                                                              164 AA; 17781 MW; 9DEFCBD456240C73 CRC64;
                                                                                                                              01-JUN-2001 (TrEMBLrel. 17, Last sequence update) 01-JUN-2002 (TrEMBLrel. 21, Last annotation update) Similar to coxsackievirus and adenovirus receptor.
                                                                                          164 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2001 (TrEMBLrel. 16, Created)
                                                                                                                  01-JUN-2001 (TrEMBLrel. 17, Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KVKKAPGVGNKKIQLTVLLKPS 142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 KVKKAPGVANKKFLLTVLGKSS 142
              241 GIIAGVIICILLLLILLALILFCC
 GTIAGAVIGVLLALVLIGLIIFCC
                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                     Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity
Matches 123; Conserv
                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9606;
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Q9H6B4;
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                                                              RESULT 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 179 --SNSQKLPTLWLAEMTSP-VISVKNASTEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNR 235
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 PADNOKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGDASINVTNLQLSDIGTYQC
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Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                          15;
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1 Similarity 35.3%; Pred. No. 1.3e-24;
83; Conservative 48; Mismatches 95; Indels
                                                                                                                                                                                                                                                                                                                          Indels
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Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; BCO26447; AAH26447.1; -.
SEQUENCE 373 AA; 41214 MW; 9C6288484AF95512 CRC64;
                                                                                                              SMART; SM00409, IG; 2.
SMART; SM00408; IGc2; 2.
SMART; SM004108; IG_like; 1.
Hypochetical protein; Immunoglobulin domain.
SEQUENCE 373 AA; 41280 MW; FDA215EB3B3C4335 CRC64;
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Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                       27.9%; Score 378.5; DB 4; 34.6%; Pred. No. 1.1e-25; ive 53; Mismatches 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   373 AA
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               InterPro; IPR003598; Ig c2.
InterPro; IPR003600; Ig_like.
InterPro; IPR003006; Ig_MHC.
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01-01N-2002 (TrEMBLrel. 21,
01-01N-2002 (TrEMBLrel. 21,
RIKEN CDNA 9030425511 gene.
                                                                                                                                                                                                                                                                                                    Local Similarity 34.69
les 91; Conservative
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InterPro; IPR003599; Ig.
                                                                                            Pfam; PF00047; ig; 2.
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89 GRVHFTSNDLKSGDASINVTNLQLSDIGTYQCKVKKAPGVGNKKIQLTVLLKPSGTRCYV 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80 GRVAFASNFL-AGDASLQIEPLKPSDEGRYTCKVKNSGRYVWSHVILKALVRPSKPKCEL 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                149 DGSEEIGNDFKLKCEPKEGSLPLLYEWQKL----SNSQKLPTLWLAEMTSP-VISVKNAS 203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29 IEKAKGETAYLPCRFTLGPEDQGPLDIEWLLSPADNQKVDQVIILYSGDKIYDDYYQDLK 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             22 IKRVAEEKVTLPCHHQLGLPEKDTLDIEWLLT--DNEGNQKVVITYSSRHVYNNLTEEQK 79
199 MASSGIYQCTAGNEAGKESCVVRV-TVQYVQSIGMVAGAVTGIVAGALLIFLLIM 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         204 TEYSGTYSCTVKNRVGSDQCLLRLDVVPPSNRAGTIAGAVIGVLLALVLIGLIIF 258
                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                              "Adipocyte-specific protein 5, a novel protein upregulated during adipocyte differentiation.", Submitted (MAR-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; ABO40499; BAB68503.1; -
InterPro; IPR003006; Ig_MHC.
Pfam; PF00047; ig; 2.
SEQUENCE 373 AA; 41186 MW; 5C6280584AF95326 CRC64;
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                                                                                                                                           01-DEC-2001 (TrEMBLrel. 19, Created)
01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
01-DAR-2002 (TrEMBLrel. 20, Last annotation update)
Adipocyte-specific protein 5.
                                                                                                               373 AA.
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Search completed: July 9, 2003, 12:45:29 Job time : 34 secs CHAIN CONTRACT OF THE PARTY OF

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-MODEL=frame+ p2n.model -DEV=xlh
-Q=/cgn2_1/USPTO_spool/US09899634/runat_09072003_111138_16343/app_query.fasta_1.455
-Q=/cgn2_1/USPTO_spool/US09899634/runat_09072003_111138_16343/app_query.fasta_1.455
-DEGENEMB1 -OFMT=fastap_-SUFFIX=rge_-MINMATCH=0.1_-LOOPEL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DCCALIGN=200 -THR_SCORE=pct_-THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE=LOCAL
-UTFMT=pto_-NORM=ext_-HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER=US09899634 @CGN 1_1 1687 @runat_09072003_111138_16343 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Ygapop 10.0 , Y
Fgapop 6.0 , F
Delop 6.0 , I
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Copyright (c) 1993 - 2003 Compugen Ltd.
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41: em_htgo_other:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

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Gene Ther. 6 (9), 1520-1535 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AF109646 959 bp mRNA linear Sus scrofa coxsackie-adenovirus-receptor homolog partial cds.
AF109646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Poller, W. Direct Submission
Direct Submission
Submitted (25-NOV-1998) Department of Cardiology and Pneumology,
Benjamin Franklin University Hospital, Hindenburgdamm 30, Berlin
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(bases 1 to 959)
Fechner,H., Haack,A., Wang,H., Wang,X., Eizema,K., Pauschinger,M., Schoemaker,R., Veghel,R., Houtsmuller,A., Schultheiss,H.P., Lamers,J. and Poller,W.
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Mammalia; Eutheria;
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                                             CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
                                                                                                    SerIleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuPro 40
                                                                                                                                                           MetAlaLeuLeuCysPheValLeuLeuCysGlyValAlaAspLeuThrArgSerLeu
ProAlaAspAsnGlnLysValAspGlnValIleIleLeuTyrSerGlyAspLysIleTyr 80
                                                                                      AGTATCACTACTCCTGAACAGATGATTGAAAAGGCCAAAGGGGGAAACTGCCTATTTGCCG
                                                                                                                                              ATGGCGCTTCTGCGCGCTTCGTGCTCCTGTGGGAGTCGCGGATCTCACCAGAAGTTTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Sus scrofa"
/db xref="taxon:9823"
/tissue_type="liver"
1. .>959
                                                                                                                                                                                                                                                                                                                                                                                              /Godon_start=1
/product="coxsackie-adenovirus-receptor homolog"
/product="coxsackie-adenovirus-receptor homolog"
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/db_xref="GI:6013139"
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LGPEDOGPLD EMULASPADNOKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGD
ASINVTNLQLSDIGTYQCKVKKAPGVGNKKIQLTVLLKPSGTRCYVDGSEEIGNDFKL
KCEPKEGSLPLLYEWQKLSNSQKLFTLMLEMTSPLISKNASTEYSGTYSCTYKNRV
KCEPKEGSLPLLYEWQKLSNSQKLFTLMLEMTSPLISKNASTEYSGTYSCTYKNRV
                                                                                                                                                                                                                                                                                                                                                            GSDQCLLRLDVVPPSNRAGTIÄGAVIGVLLALVLIGLIVFCCHKKRREEKYEKEVHHD
IREDVPPPKSRTSTARSYLGSNHSSLGSMSPSNMEGYSKTQYN"
200 c 219 g 250 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene="CAR"
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Matches:
Conservative:
Mismatches:
Indels:
Gaps:
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(CAR) mRNA,
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Sus.
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AUTHORS
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241 GlyAlaValIleGlyValLeuLeuAlaLeuValLeuIleGlyLeuIleIlePheCysCys
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                                                                                                                                                                                                                                                                                                                                                                    1 (bases 1 to 1184)
Thoelen,I., Keyaerts,E., Lindberg,M. and Van Ranst,M. Characterization of a cDNA encoding the bovine coxsac
                                                                                                                                                                   Submitted (30-APR-2001) Laboratory Virology, Rega Institute for Medica 10, Leuven B-3000, Belgium
                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea Bovidae; Bovinae; Bos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AY033651 1184 bp
Bos taurus coxsackie virus and
                                                                                                                                                                                                                                  Direct Submission
                                                                                                                                                                                                                                                        2 (bases 1 to 1184)
Thoelen, I., Keyaerts
                                                                                                                                                                                                                                                                                                                                                            adenovirus receptor
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                                                                                                                                                                                                                                                                                                                                        Biophys.
                                                                                                                                             Location/Qualifiers
/codon_start=1
/product="coxsackie virus
/protein_id="AAK57804.1"
                                                                                                      organism="Bos
                                                                                                                                                                                                                                                        Keyaerts, E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GI:18175273
                                                                                  yanism="Bos taurus"
_xref="taxon:9913"
                                                                                                                                                                                                                                                                                                                                             Commun.
                                                                                                                                                                                                                                                        Lindberg, A.M.
                                                                                                                                                                                         catory of Clinical
Medical Research,
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and

adenovirus

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Percent Similarity:
Best Local Similarity:
Query Match:
DB:
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                  GlyAlaVall1eGlyValLeuLeuAlaLeuValLeuIleGlyLeuIleIlePheCysCys
                                                                   AspGlnCysLeuLeuArgLeuAspValValProProSerAsnArgAlaGlyThrIleAla
                                                                                                                                                                     AsnAlaSerThrGluTyrSerGlyThrTyrSerCysThrValLysAsnArgValGlySer
                                                                                                                                                                                                                                     SerGlnLysLeuProThrLeuTrpLeuAlaGluMetThrSerProValIleSerValLys
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/translation="MELLLEFILLCGVADFTRGLSITTPEQMIEKAKGETAYLPCKFT
/GPEDQGPLDIEWILSPADNQKVDQVIILYSGDKIYDDYYQDLKGRVHFTSNDLKSGD
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KCEPKEGSLPLRYEWQKLSDSQKLPTSWLPEMTSPVISVKNASAEYSGTYTCTVRNRV
GSDQCLLRLDVVPPSNRAGTIAGAVIGTLLALVLIALIVFCCHKKRREEKYEKEVHHD
IREDDVPPPKSRTSTARSYIGSNHSSLGSMSPSNMEGYSKTQYNQVPSEDLERAPQSPT
LPPAKVAAPNLSRMGAVPVMIPAGSKDGSIV"
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1 (bases 1 to
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Submitted (24-NOV-1998)
Benjamin Franklin Unive
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Mammalia; Eutheria; Carnivora; Fissipedia; Canidae;
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ProAlaAspAsnGlnLysValAspGlnValIleIleLeuTyrSerGlyAspLysIleTyr
                                                                                                                              CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
                                                                                         TGCAAATTTACCCTTAGTCCAGAAGACCAGGGACCGCTGGACATCGAGTGGCTGCTGTCA
                                                                                                                                                                                                               AGTATCACTACTCCTGAACAGATGATTGAAAAGGCCAAAGGGGAAACTGCTTATTTGCCA
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IREDVPPLKSRTSTARSYIGSNHSSLGSMSPSNMEGYSKTQYN"
3 201 c 206 g 252 t
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /codon_start=1
/product="coxeackie-adenovirus-receptor
/protein_id="AAF01256.1"
/db_xref="GI:6013137"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /strain="breed German shepherd"
/db_xref="taxon:9615"
/tissue_type="liver"
1. .959
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                                   Benjamin
Germany
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AF124598
AF124598.1 GI:4884701
                                                                                                                                                                                                          Expression of coxsackie adenovirus receptor and alphav-integrin does not correlate with adenovector targeting in vivo indicating anatomical vector barriers
                                                                                                                                                                                                                                                            Fechner, H., Haack, A., Wang, H., Wang, X., E. Schoemaker, R., Veghel, R., Houtsmuller, A., Lamers, J. and Poller, W.
                                                                     Submitted (29-JAN-1999)
                                                                                                                  2 (bases 1 to 1033)
Fechner, H:, Haack, A.,
                                                                                                                                                                                          Gene Ther. 6 (9), 1520-1535 (1999)
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                                     TCACAGAAAATGCCCCACTTCATGGTTAGCAGAAATGACTTCATCTGTTATATCTGTAAAA
                                                     SerGlnLysLeuProThrLeuTrpLeuAlaGluMetThrSerProValIleSerValLys
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ASINVTNLQLSDIGTYQCKVKKAPGVANKKIHLVVLVKPSGARCYVDGSEEIGSDFKI
KCEPKEGSLPLQYEWQKLSDSQKMPTSWLAEMTSSVISVKNASSEYSGTYSCTVRNRV
GSDQCLLRLNVVPPSNKAGLIAGAIIGTLLALALIGLIIFCCRKKRREEKYEKEVHHD
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/product="coxsackie and adenovirus
/protein_id="AAD31772.1"
/db_xref="GI:4884702"
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/db_xref="taxon:9606"
/tissue_type="liver"
/note="Caucasian"
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1 (bases 1 to 2354)

Tomko,R.P., Xu.R. and Philipson,L.

HCAR and MCAR: the human and mouse cellular receptors for subgroup C adenoviruses and group B coxsackieviruses

Proc. Natl. Acad. Sci. U.S.A. 94 (7), 3352-3356 (1997)
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/translation="MALLICFVLLCGVVDFARSLSITTPEEMIEKAKGETAYLPCKFT
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ASINVTNLQLSDIGTYQCKVKKAPGVANKKIHLVVLVKPSGARCYVDGSEEIGSDFKI
                                                                                                                                                                                                                                                                                                                                                                                        /function="cellular receptor for subgroup and group B coxsackieviruses" /note="immunoglobulin superfamily member"
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Y07593
Y07593.1 GI:1881
46 kDa receptor I
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Mammalia; Eutheria; Primates;
1 (bases 1 to 2434)
Bergelson, J.M., Cunningham, J.P.
Krithivas, Hong, J.S., Horwi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted (20-AUG-1996) J.M. Institute, Lab of Infectious 02115, MA, 02115, USA
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Bergelson, J.M.
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                    ProAlaAspAsnGlnLysValAspGlnValIleIleLeuTyrSerGlyAspLysIleTyr
                                                                AGTATCACTACTCCTGAAGAGATGATTGAAAAAAGCCAAAGGGGAAACTGCCTATCTGCCG
                                                                                                                                                          SerIleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuPro
                                                                                                                                                                                                            ATGGCGCTCCTGCTGCTTCGTGCTCCTGTGCGGAGTAGTGGATTTCGCCAGAAGTTTG
                                                                                                                                                                                                                            MetAlaLeuLeuLeuCysPheValLeuLeuCysGlyValAlaAspLeuThrArgSerLeu
CCAGCTGATAATCAGAAGGTGGATCAAGTGATTATTTTATATTCTGGAGACAAAATTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
/product="coxsackie and aden
/protein_id="CAA68868.1"
/db_xref="GI:1881447"
/db_xref="SPTREMBL:P78310"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /translation="MALLICFVILLCGVVDFARSLSITTPEEMIEKAKGETAYLPCKFT LSPEDGEPLDIEMISPADMOKVDQVIILYSGDKIDYPDLKGRVHFTSNDLKSGD ASINVTNULGSDKIDSHTYCKVKKAFGENAKKGUNGKVDQVIILYSGDKIDYPDLKGRVHFTSNDLKSGL KCEPKEGSLPLQYEWQKLSDSQKWPTSWILAEMYSSVISVKNASSEYSGTYSCTVRNVV GSDCCILRLNVVPPSNKAGIJAGAIICTLLALALIGLIIFCCRKKRREEKYEKEVHHD IREDVPPKSRTSTARSYIGSNHSSLGSMSPSNMEGYSKTQYNQVPSEDFERTPQSPT LPPAKVAAPNLSRMGAIPVMIFARGKGSIV"

487 9 761 t
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ong, J.S., Horwitz, M.S., Crowell,
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Disease, 44
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Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: villalon@bcm.tmc.edu.
Villalon, D.K., Luna, R.A., Hale, S.M., Hul
A.M., Holloway, M., Telford, B, Hodgson, A.
Muzny,D.M., Gibbs,R.A.
                                                                                                                         NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs r@mail.nih.gov
Tissue Procurement: ATCC
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2447 bp mRNA linear PRI 12-JI
Homo sapiens, coxsackie virus and adenovirus receptor, clone
MGC:17118 IMAGE:3456544, mRNA, complete cds.
BC010536
                                                                                                                                                                                                                                                                          Submitted (10-JUL-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1. (bases 1 to 2447)
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MGC.
                                                                                                Center code: BCM-HGSC
                                                                                                               Sequencing Center
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                      Lu, X., Garcia,
J., Yu, W.,
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This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 4503 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetAlaLeuLeuLeuCysPheValLeuLeuCysGlyValAlaAspLeuThrArgSerLeu
                                                                  LysValLysLysAlaProGlyValGlyAsnLysLysIleGlnLeuThrValLeuLeuLys
                                                                                                                                                                                                                                                                                 ProAlaAspAsnGlnLysValAspGlnValIleIleLeuTyrSerGlyAspLysIleTyr
                                                                                                                                                                                                                                                                                                                                                         CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
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ProSerGlyThrArgCysTyrValAspGlySerGluGluIleGlyAsnAspPheLysLeu 160
                                                                                                                                                  GlyAspAlaSerIleAsnValThrAsnLeuGlnLeuSerAspIleGlyThrTyrGlnCys
                                                                                                                                                                                                              AspAspTyrTyrGlnAspLeuLysGlyArgValHisPheThrSerAsnAspLeuLysSer
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                                                                                                                   GGTGATGCATCAATAAATGTAACGAATTTACAACTGTCAGATATTGGCACATATCAGTGC
                                                                                                                                                                                           GATGACTACTATCCAGATCTGAAAGGCCGAGTACATTTTACGAGTAATGATCTCAAATCT
                                                                                                                                                                                                                                                              CCAGCTGATAATCAGAAGGTGGATCAAGTGATTATTTTATATTCTGGAGACAAAATTTAT
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ASINVTWLQLSDIGTYQCKVKKAPGVANKKIHLVVLVKPSGARCYVDGSEEIGSDFKI
KCEPKEGSLPLQYEWQKLSDSQKWPTSWLAENTSSVISVKNASSEYSGTYSCTVARNY
GSDQCLLRLNVVPPSNKAGLIAGAIIGTLLALALIGLIIFCCRKKRREEKYEKEVHHD
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/db xref="G1:14714775"
/translation="MALLLCFVLLCGVVDFARSLSITTPEEMIEKAKGETAYLPCKFT
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CCTTCAGGTGCGAGATGTTACGTTGATGGATCTGAAGAAATTGGAAGTGACTTTAAGATA

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                                                                                                                                                             Clone distribution: MGC clone distribution information can through the I.M.A.G.B. Consortium/LLNL at: http://image.llr Series. IRAK Plate: 4 Row: h Column: 22
This clone was selected for full length sequencing because passed the following selection criteria: matched mRNA gi: 4
                                                                                                                                                                                                                                                                                                                                                      USA
NIH-MGC Project URL: http://m
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
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MGC:5086 IMAGE:3463613,
BC003684
                                                                                                                                                                                                                                                            cDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) CNA Sequencing by: Sequencing Group at the Stanford Human Center, Stanford University School of Medicine, Stanford, Meb site:

http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and
                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (28-FEB-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Hethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Mammalia; Eutheria; 1 (bases 1 to 2537)
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                                      /clone="MGC:5086 IMAGE:3463613"
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/db_xref="LocusID:1525"
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.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                    http://mgc.nci.nih.gov
                         pCMV-SPORT6"
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GlyAlaValI1eGlyValLeuLeuAlaLeuValLeuI1eGlyLeuI1eI1ePheCysCys
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/product="coxsackie virus
/protein_id="AAH03684.1"
/db_xref="GI:13277552"
                                     and
                                     adenovirus
                                   receptor"
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US-09-899-634C-2 (1-261) x BC003684 102 ATGGCGCTCCTGCTGCTTCGTGCTCCTGTGCGGAGTAGTGGATTTCGCCAGAAGTTTG Similarity: 21 SerIleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuPro AspGlnCysLeuLeuArgLeuAspValValProProSerAsnArgAlaGlyThrIleAla AsnAlaSerThrGluTyrSerGlyThrTyrSerCysThrValLysAsnArgValGlySer SerGlnLysLeuProThrLeuTrpLeuAlaGluMetThrSerProVall1eSerValLys LysCysGluProLysGluGlySerLeuProLeuLeuTyrGluTrpGlnLysLeuSerAsn CCTTCAGGTGCGAGATGTTACGTTGATGGATCTGAAGAAATTGGAAGTGACTTTAAGATA ProSerGlyThrArgCysTyrValAspGlySerGluGluIleGlyAsnAspPheLysLeu AAAGTGAAAAAAGCTCCTGGTGTTGCAAATAAGAAGATTCATCTGGTAGTTCTTGTTAAG LysValLysLysAlaProGlyValGlyAsnLysLysIleGlnLeuThrValLeuLeuLys GGTGATGCATCAATAAATGTAACGAATTTACAACTGTCAGATATTGGCACATATCAGTGC GlyAspAlaSerIleAsnValThrAsnLeuGlnLeuSerAspIleGlyThrTyrGlnCys AspAspTyrTyrGlnAspLeuLysGlyArgValHisPheThrSerAsnAspLeuLysSer ProAlaAspAsnGlnLysValAspGlnValIleIleLeuTyrSerGlyAspLysIleTyr CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer AGTATCACTACTCCTGAAGAGATGATTGAAAAAGCCCAAAGGGGAAACTGCCTATCTGCCG MetAlaLeuLeuCysPheValLeuLeuCysGlyValAlaAspLeuThrArgSerLeu GATCAGTGCCTGTTGCGTCTAAACGTTGTCCCTTCCAAATAAAGCTGGACTAATTGCA TCACAGAAAATGCCCACTTCATGGTTAGCAGAAATGACTTCATCTGTTATATCTGTAAAA AAATGTGAACCAAAAGAAGGTTCACTTCCATTACAGTATGAGTGGCAAAAATTGTCTGAC GATGACTACTATCCAGATCTGAAAGGCCGAGTACATTTTACGAGTAATGATCTCAAATCT CCAGCTGATAATCAGAAGGTGGATCAAGTGATTATTTTATATTCTGGAGACAAAATTTAT TGCAAATTTACGCTTAGTCCCGAAGACCAGGGACCGCTGGACATCGAGTGGCTGATATCA **AATGCCTCTTCTGAGTACTCTGGGACATACAGCTGTACAGTCAGAAACAGAGTGGGCTCT** a /translation="MALLLCFVLLCGVVDFARSLSITTPEEM/EKAKGETAYLPCKFT LSPEDGGFLDIEM/ISPADNGKVDQVIILYSGDKIYDDYYDLKGRVHFTSNDLKSDLASJ ASINVINLQLSBIGTYCKVKKAFGVANKKHLLVLVKFSGARCYVDGSEEIGSDKK KCEPKEGSLPLQYEWQKKLSDSQKMPTSWLAEMTSSVISVKNASSEYSGTYSCTVRNRV GSDQCLLRLNVVPSNKAGLIAGAIIGTLALALIGLIIFCCRKKRREEKYEKEVHHD IREDVPPKRSKTSTARSYJGSNHSSLGSMSFSNMEGYSKTQYNQVPSEDFERTPQSFT LPPAKVAAPNLSRMGAIPVMIPAQSKDGSIV" 2.06e-112 1238.00 94.25% 89.27% 91.10% ດ 509 (1-2537)ω Length:
Matches:
Conservative:
Mismatches:
Indels: Gaps: 2537 233 13 15 0 220 200 641 180 581 160 521 140 461 120 401 100 80 60 221 40 16] 20 240 761 701 341 281

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RESULT 10
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Sequence 106
AX055476
AX055476.1
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Ashkenazi,A.J., Baker,K.P., Chan,B., Goddard,A., Godowski,P.J.,
Gurney,A.L., Hebert,C., Henzel,W., Kabakoff,R.C., Shelton,D.L.,
Tumas,D., Watanabe,C.K. and Wood,W.I.
Compositions and methods for the treatment of immune related
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.
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Compositions and methods for the treatment of immune
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Secreted and transmembrane polypeptides and the same
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Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                           Patent: WO 0193983-A 215 13-DEC-2001; Genentech Inc. (US)
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Secreted and transmembrane polypeptides and the same
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Genentech, Inc. (US)
Location/Qualifiers
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                                                                                                                                            AspAspTyrTyrG1nAspLeuLysG1yArgValHisPheThrSerAsnAspLeuLysSer
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              LysValLysLysAlaProGlyValGlyAsnLysLysIleGlnLeuThrValLeuLeuLys
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Patent: WO 0208284-A 279 31-JAN-2002;
Genentech, Inc. (US) ; Baker, Kevin P. (US) ; Ferrara, Napoleone (US) ; Gerber (US) ; Gerritsen, Mary E. (US) ; Goddard, Audrey (US) ; Godowski, Paul J. (US) ; Gurney, Austin L. (US) ;
Hillan, Kenneth J. (US) ; Marsters, Scot A. (US) ; Pan, James (US) ; Paoni, Nicholas F. (US) ; Stephan, Jean-Philippe F. (US) ;
Watanabe, Colin K. (US) ; Williams, P. Mickey (US) ; Wood, Williams
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Sequence 279 from Patent
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Eukaryota; Metazoa;
Mammalia; Eutheria;
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1 MetAlaLeuLeuCysPheValLeuLeuCysGlyValAlaAspLeuThrArgSerLeu 20

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-Q=/cgn2_1/USPTO_sp01/US09899634/runat_09072003_111138_16332/app_query.fasta_1.455
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-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Fgapop 6.0, I
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Pred. No. is the number of results predicted by chance to I score greater than or equal to the score of the result being and is derived by analysis of the total score distribution to have printed.

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RESULT 1 AAV50429 ID AAV5 Human coxsackievirus and Ad2 and Ad5 receptor (HCAR) cDNA. 07-DEC-1998 AAV50429; AAV50429 standard; Homo HCAR; coxsackievirus receptor; CVB; adenovirus; Ad2 receptor; Ad5 receptor; human; infection; vaccine; gene therapy; ds. sapiens. (first entry) /*tag= Location/Qualifiers CDNA; 2354 ВÞ

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This cDNA molecule codes for human HCAR protein (see AAW69697) that codes are serves as a cellular receptor for adenoviruses of the serotypes 2 and 5 (subgroup C) and for the group B coxsackieviruses. It was obtained by screening newborn human melanocyte and pancreas islet cell cDNA libraries using mouse MCAR clone RTMCAR-4 (see AAV50430) as probe. The invention also provides host cells transformed with DNA molecules encoding HCAR or MCAR and methods of producing the recombinant proteins or their derivatives. These proteins, their extracellular domains, as well as oligopeptides (see AAW69699-708) which bind virus, are also provided. Isolated HCAR or MCAR proteins or their fragments or variants are used to prevent or treat virus infections. Expressing the DNA in cells which lack these viral receptors renders the cells susceptible to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA encoding human receptor for adenovirus C and coxsackievirus B - for preventing and treating viral infection and rendering cells susceptible to transformation by adenoviral vectors in gene therapy
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Transgenic mouse comprising a nucleotide sequence Coxsackie virus and/or Adenovirus receptor (tCAR) the analysis of cellular physiology -

encoding a truncated polypeptide useful for

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                      The invention relates to a targeting molecule that comprises a soluble adenoviral receptor domain, a trimerisation domain and a targeting igand domain. The targeting molecules are used for targeting an adenoviral particle to a cell expressing a cell surface molecule. The method involves contacting the adenoviral particle with the targeting molecule of form a complex, and contacting the cell with the complex, and in delivering a heterologous gene selectively to a cell. The complex is used for preparing a medicament for treatment of disease in a human mammal, such as cancer, preferably, adenocarcinoma of the prostate, by gene therapy. The present sequence represents a cDNA encoding the human coxsackie-adenovirus receptor (CAR), a 46 kDa transmembrane protein. The soluble form of CAR (sCAR) can be used in the targeting molecule of the
                                                                                                                                                                                                                                                          A targeting molecule for use in forming complexes to treat cancer, such as adenocarcinoma of the prostate, comprises a soluble adenoviral
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06-OCT-2000; 2000US-0684552.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human coxsackie-adenovirus receptor (CAR) encoding
                                                                                                                                                                                                                 Example 14; Page 45-47;
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NOVARTIS-ERFINDUNGEN VERW
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                                                                                                                                                                                                                                                                                                                                                Smith T,
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                                                                One hundred and eighty seven nucleic useful in diagnosis and treatment of
                                                                                                             WPI; 2002-090516/12.
P-PSDB; ABB84956.
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J, Gurney A
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AspGlnCysLeuLeuArgLeuAspValValProProSerAsnArgAlaGlyThrI1eAla
                                                                           AATGCCTCTTCTGAGTACTCTGGGACATACAGCTGTACAGTCAGAAACAGAGTGGGCTCT
                                                                                                     AsnAlaSerThrGluTyrSerGlyThrTyrSerCysThrValLysAsnArgValGlySer
                                                                                                                                                                                               SerGlnLysLeuProThrLeuTrpLeuAlaGluMetThrSerProVallleSerValLys
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                                                                                                                                                                    TCACAGAAAATGCCCACTTCATGGTTAGCAGAAATGACTTCATCTGTTATATCTGTAAAA
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22-JAN-2001
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17-AUG-2000;
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2000US-0747259
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2001US-0866028.
2001US-0866034.
2001WG-US17092.
2001US-0870574.
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2000US-220664P.
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Stephan J
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present invention provides the protein and coding sequences of human PRO proteins. These are useful for treating or diagnosing a cardiovascular, endothelial or angiogenic disorder, including cardiac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GERR/)
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ski PJ, Gurney !
an JF, Watanabe
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STEPHAN J F.
WATANABE C K.
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GODDARD A.
GODOWSKI P J.
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CK, Williams PM, Wood WI,
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01-SEP-1999;
16-DEC-1999;
18-FEB-2000;
01-MAR-2000;
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17-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence is a cDNA (DNA82361 clone) encoding PRO5723 protein. PRO protein, its agonist or antagonist or its antibody which are capable of enhancing or inhibiting the proliferation of T-lymphocytes or of increasing the infiltration of inflammatory cells into a tissue are useful in the diagnosis and treatment of immune-related diseases in mammals. The PRO protein is useful for treating systemic lupus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New PRO polypeptides for treating immune related and inflammatory diseases such as rheumatoid arthritis, systemic vasculitis, asthmatoimmune hemolytic anemia, and diabetes mellitus -
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CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
                                                                     SerIleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuPro
                                                                                                                                   MetAlaLeuLeuCysPheValLeuLeuCysGlyValAlaAspLeuThrArgSerLeu
                                                                                                                  ATGGCGCTCCTGCTGTTCGTGCTGCTGCGGAGTAGTTGGATTTCGCCAGAAGTTTG
                                                    AGTATCACTACTCCTGAAGAGATGATTGAAAAAGCCAAAGGGGAAACTGCCTATCTGCCA
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02-JUN-1999;
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26-JUL-1999;
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                                                                                                                                                                                                          Human PRO5723 nucleotide sequence SEQ ID NO:504
                                                                     30-MAR-2000;
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99WO-US12252.
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24-FEB-2000;
24-FEB-2000;
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15-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                         proteins. The PRO proteins have cycostatic activity. The PRO proteins can be used for targeted delivery of bioactive molecules, such as toxins, radiolabels or antibodies, that cause cell death. PRO nucleotide sequences, and their fragments, can be used as hybridisation probes, in chromosomal and gene mapping, and in the generation of anti-sense RNA and DNA. They may also be used to produce transgenic animals which are used to develop and screen therapeutically useful reagents. The PRO nucleotide and protein sequence can be used for tissue typing and in treating cancer. Anti-PRO antibodies can be used in diagnostic assays. ARF44270 to AAF4470 represent PCR primers and hybridisation probes used in the isolation of human PRO sequences. AAF444269 and AAB65154 to AAB65300 represent human PRO polynucleotide and protein sequences given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRO polynucleotides used to produce polypeptides used to target bioactive molecules such as toxins, radiolabels or antibodies, specific cells, to cause targeted cell death -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Fig 317; 935pp; English.
    CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
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496 160 556 120

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Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                 The present sequence is one of thirty three nucleic acids encoding PRO polypeptides. The PRO polypeptides, anti-PRO antibodies, agonists and cantagonists are useful for treating and diagnosing immune related disorders such as systemic lupus erythematosus, rheumatoid arthritis, costeoarthritis, juvenile chronic arthritis, spondyloarthropathies, costeoarthritis, asrcoidosis, autoimmune haemolytic costeoarthritis, autoimmune haemolytic and peripheral nervous systems (such as multiple sclerosis, idiopathic cinflammatory demyelinating polyneuropathy), hepatobiliary diseases (such as infectious, autoimmune chronic active hepatitis, primary costiarty cirrhosis, granulomatous hepatitis and sclerosing cholangitis), inflammatory bowel disease, gluten-sensitive enteropathy and whipple's chiary cirrhosis, granulomatous hepatitis and sclerosing cholangitis), coffice sease, autoimmune or immune-mediated skin diseases (such as bullous skin diseases, erythema multiforme, contact dermatitis, psoriasis), costacides as eosinophilic pneumonias, idiopathic pulmonary fibrosis control guch as seosinophilic pneumonias, idiopathic pulmonary fibrosis controluding graft rejection and graft-versus-host diseases.
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28-JUL-1999;
01-SEP-1999;
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30-NCV-1999;
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Hebert C,
Wood WI;
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                                                                                                               Sequence
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Henzel W, Kabakoff
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99WO-US20114.
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99WO-US2114.
99WO-US28634.
99WO-US28634.
99WO-US30911.
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             Human; secreted protein; PRO; tumour; lung cancer; colon cancer; breast cancer; prostate tumour; rectal tumour; liver tumour; pericyte cell proliferation; chondrocyte cell proliferation; tumour necrosis factor-alpha; gene; ss.
                                                                                      cDNA encoding
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                    ovarian cancer; identification; detection; characterisation;
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16-MAR-2000;
21-MAR-2000;
31-MAY-2000;
20-JUL-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 3276
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16-MAR-2000;
25-MAY-2000;
09-JUN-2000;
18-JUL-2000;
13-DEC-2000;
The invention relates to an isolated nucleic acid molecule (I) comprising a nucleotide sequence given in Tables 1-9 (ABV00010-ABV62213) of the
                                                               Novel isolated nucleic acid molecule associated with cancerous state of prostate cells and correlating with presence of prostate cancer, useful for detecting presence of prostate cancer -
                                                                                                                                                                                                                                                                                                                                                                                           Human; prostate pharmacogenomic
                                       Claim 1; Page 5079-5080; 11750pp; English
                                                                                                                                                                                                                                                                                                                                         WO200160860-A2
                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
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; 2000US-211314P.
; 2000US-219007P.
; 2000US-255281P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       specification or its complement. (I) is useful for:
(a) assessing whether a patient is afflicted with prostate cancer;
(b) monitoring the progression of prostate cancer in a patient;
(c) assessing the efficacy of a test compound to inhibit prostate cancer in a patient;
(d) assessing the efficacy of a therapy for inhibiting prostate cancer in a patient;
(e) selecting a composition for inhibiting prostate cancer in a patient (f) assessing the prostate cell carcinogenic potential of a compound;
(g) determining whether prostate cancer has metastanized;
(h) assessing the aggressivence.
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GATCAGTGCCTGTTGCGTCTAAACGTTGTCCCTTCCAAATAAAGCTGGACTAATTGCA
                   AspGlnCysLeuLeuArgLeuAspValValProProSerAsnArgAlaGlyThrIleAla
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                       CC receptor (CAR). The present invention also describes: (1) a method for CC modulating CAR expression comprising contacting the cell with an agent CC which modulates CAR protein activity or CAR nucleic acid expression, CC such that a cell associated activity is altered relative to a cell associated activity of the cell in the absence of the agent; and (2) a CC method for detecting the presence of CAR in a biological sample CC comprising contacting a biological sample with an agent capable of CC detecting CAR protein or mRNA such that the presence of CAR is detected. CC Modulation of CAR is useful for treatment of cardiac infection, e.g. CC myocarditis, pericarditis or dilated cardiomypathy, or infection, e.g. cc meningoencephalitis, or pancreatic infection, e.g. acute pancreatitis, or infection of the respiratory or gastrointestinal tract or childhood conset diabetes mellitus. Probes derived from CAR nucleic acids are consetul for hybridisation assays, and antibodies raised against CAR protein are useful for blocking CAR expression. Cell-free assays which cinclude combining CAR protein and a candidate/test compound are useful conserved in screening for drugs which interact with CAR protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
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myocarditis; pericarditis; dilated cardion
pancreatic infection; acute pancreatitis;
                                                                                                                                                                                                                                                                                                                                  Claim
                                                                                                                                                                                                                                                                                                                                                              DNA encoding coxsackie virus and adenovirus receptor - useful for modulation of e.g. cardiac, pancreatic or gastrointestinal infection
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bergelson JM,
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/product= "coxsackievirus and
/transl_except= (pos:621..623,
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Percent Similarity:
Best Local Similarity:
Query Match:

4.76e-121 1216.00 93.85% 88.08% 89.48%

Length:
Matches:
Conservative:
Mismatches:
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US-09-899-634C-2 (1-261) x AAV28846

(1-1128)

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The present sequence encodes mouse coxsackievirus and adenovirus receptor (CAR). The present invention also describes: (1) a method for modulating CAR expression comprising contacting the cell with an agent which modulates CAR protein activity or CAR nucleic acid expression, such that a cell associated activity or CAR nucleic acid expression, such that a cell associated activity or CAR nucleic acid expression, associated activity of the cell in the absence of the agent; and (2) a method for detecting the presence of CAR in a biological sample comprising contacting a biological sample with an agent capable of detecting CAR protein or mRNA such that the presence of CAR is detected. Modulation of CAR is useful for treatment of cardiac infection, e.g. myocarditis, pericarditis or dilated cardiomyopathy, or infection of the central nervous system, e.g. a non-specific febrile illness or meninggencephalitis, or pancreatic infection. e.g. acute pancreaticis, or infection of the respiratory or gastrointestinal tract or childhood onset diabetes mellitus. Probes derived from CAR nucleic acids are useful for bybridisation assays, and antibodies raised against CAR protein are useful for blocking CAR expression. Cell-free assays which include combining CAR protein and a candidate/test compound are useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse; coxsackievirus; adenovirus; receptor; CAR; cardiac infection; myocarditis; pericarditis; dilated cardiomyopathy; meningoencephalitis; pancreatic infection; acute pancreatitis; gastrointestinal tract;
                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA encoding coxsackie virus and adenovirus receptor - useful for modulation of e.g. cardiac, pancreatic or gastrointestinal infection
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/product= "coxsackievirus and adenovirus receptor"
/trans1 except= (pos:1096..1098,aa:xaa)
/note= "Xaa= a stop codon, the sequence is shown a
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                                                                                                                                                                                                                                                                                                                                           infection;
                                                                                                                                                                                                                                                                                                                                                                        receptor; CVB; adenovirus; Ad2 receptor;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         serves as a cellular receptor for adenoviruses of the serotypes 2
(and 5 (subgroup C) and for the group B coxsackieviruses (CVB). It
was obtained by screening a lambda phage expression CDNA library
with antiserum containing antibodies specific for mouse CVB
binding protein p46, and was used to identify human HCAR cDNA
(see AAV50429). The invention also provides host cells transformed
with DNA molecules encoding HCAR or MCAR and methods of producing
the recombinant proteins or their derivatives. These proteins,
their extracellular domains, as well as oligopeptides (see
AAW69699-708) which bind virus, are also provided. Isolated HCAR or
MCAR proteins or their fragments or variants are used to prevent
or treat virus infections. Expressing the DNA in cells which lack
these viral receptors renders the cells susceptible to
these viral receptors renders the cells susceptible to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA encoding human receptor for adenovirus C and coxsackievirus for preventing and treating viral infection and rendering cells susceptible to transformation by adenoviral vectors in gene them
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1301
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                     GlyAspAlaSerIleAsnValThrAsnLeuGlnLeuSerAspIleGlyThrTyrGlnCys
                                                                                  AspAspTyrTyrGlnAspLeuLysGlyArgValHisPheThrSerAsnAspLeuLysSer
                                                                                                                        CGTCTGATAACCAGATAGTGGATCAGGTGATCATTTTGTATTCTGGAGACAAAATTTAT
                                                                                                                                               ProAlaAspAsnGlnLysValAspGlnValIleIleLeuTyrSerGlyAspLysIleTyr
                                                                                                                                                                                         TGCAAGTTTACTCTCAGTCCCGAAGACCAGGGACCACTGGACATTGAATGGCTGATATCC
                                                                                                                                                                                                                   CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
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GGCGACGCATCTATAAATGTGACCAACCTGCAGCTGTCGGACATTGGCACTTACCAGTGC
                                                              GATAACTATCCGGATCTGAAAGGACGGGTACATTTTACGAGTAACGATGTCAAGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     molecule codes for mouse MCAR protein
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P-PSDB;
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This protein is
                                                                                     New adenoviral fibre trimer with reduced binding - useful for, e.g. preparing gene therapy vector ectopic infection for in vitro applications
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28-MAY-1997;
                                                         Example 8;
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888888888888888 having an N-terminus of an adenoviral fibre protein and a trimerisation domain. Such monomers have lower affinity for native substrate than the native adenoviral fibre trimer. Cell lines containing such monomers are used (i) to propagate adenovirus for use as gene therapy vectors (for in vitro or in vivo applications, (ii) as reagents for studying adenoviral attachment and infection, and (iii) in receptor-ligand interaction assays. The new viruses produce minimal ectopic infection (they can not infect native host cells) so are safer as vectors and can be engineered for selective targeting to other cells.

Sequence 795 BP; 236 A; 157 C; 191 <u>.</u> 211 ۲, ۲, 0 other;

2.67e-113 1142.00 94.63% 88.43% 84.03%

Length:
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Conservative:
Mismatches:
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GGCTCA

Search completed: July 12, 2003, 12:09:32 Job time : 194 secs

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Command line parameters:

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-DB=Issued Patents NA -QPMT=fastap -SUFFIX=rni -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS=Dits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OUTFMT=pto -NORM=ext -HEDPSIZE=500 -MINLEN=0 -MAXLEN=200000000
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-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSFBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Perfect score:
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9-15	-08-280-757B-	-08-479-744A-3	-08-153-262-	-08-101-624-	-08-456-104-	-08-147-772-	-09-430-503-	-08-460-736-20	8-458-356-	-08-184-009-20	-09-430-503-	9-430-503-	-09-430-503-	9-430-503-	-09-430-503-1	-09-462-270-	9-430-503-2	-09-430-503-19	-09-254-465A-	-09-254-465A-	-09-484-970B-	-09-152-060-3	-465	-09-336-536-2	-09-336-536-2	-09-188-930-7	-09-188-930-	-09-462-270-	-09-484-970B	79-424-	-09-336-	36-536-3
nce 3, Appl	nce 30, App	nce 30, App	nce 3, Appl	nce 24, App	nce 7, Appl	nce 3, Appl	nce 1, Appl	nce 202, Ap	nce 202, Ap	Sequence 202, App	nce 7, Appl	nce 5, Appl	nce 3, Appl	nce 21, App	nce 17, App	nce 3, Appl	nce 23, App	nce 19, App	nce 11, App	nce 7, Appl	nce 83, App	nce 35, App	nce 8, Appl	nce 26, App	псе 27, Арр	nce 70, App	nce 254, Ap	nċe 1, Appl	nce 84, App	nce 2, Appl	nce 37, App	8, App

ALIGNMENTS

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US-09-272-496-1
                                                               US-09-899-634C-2 (1-261) x US-09-272-496-1 (1-2434)
                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                    Alignment Scores:
                                                                                                                   Query Match:
                                                                                                                                                                    Score:
                                                                                                                                                                                      Pred. No.:
                                                                                                                                                                                                                                        US-09-272-496-1
                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 1
LENGTH: 2434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/09272496 Patent No. 6245966
                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: DeGregori, James
TITLE OF INVENTION: Adenoviral mediated gene transfer into lymphocytes
FILE REFERENCE: 90-98
CURRENT APPLICATION NUMBER: US/09/272,496
CURRENT FILING DATE: 1999-03-19
EARLIER APPLICATION NUMBER: US 60/092782
EARLIER FILING DATE: 1998-07-14
NUMBER OF SEQ ID NOS: 7
                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                       FEATURE:
NAME/KEY: CDS
                                                                                                                                                                                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                                                                                                           LOCATION:
60
                 MetAlaLeuLeuCysPheValLeuLeuCysGlyValAlaAspLeuThrArgSerLeu
 ATGGCGCTCCTGCTGTTCGTGCTCCTGTGCGGAGTAGTGGATTTCGCCAGAAGTTTG 119
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1238.00
94.25%
89.27%
91.10%
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Matches:
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41

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US-08-28-383B-3; Sequence 3, Application US/08928383B; Patent No. 6210921; GENERAL INFORMATION:
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                               APPLICANT: Robert W. Finberg, Jeffrey M. APPLICANT: and Marshall S. Horwitz TITLE OF INVENTION: CAR, A No. 6210921el TITLE OF INVENTION: Receptor NUMBER OF SEQUENCES: 26
                                                                                                                                                                              NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysValLysLysAlaProGlyValGlyAsnLysLysIleGlnLeuThrValLeuLeuLys 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyAlaValI1eGlyValLeuLeuAlaLeuValLeuI1eGlyLeuI1eI1ePheCysCys
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCACAGAAAATGCCCACTTCATGGTTAGCAGAAATGACTTCATCTGTTATATCTGTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerGlnLysLeuProThrLeuTrpLeuAlaGluMetThrSerProValIleSerValLys
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATGTGAACCAAAAGAAGGTTCACTTCCATTACAGTATGAGTGGCAAAAATTGTCTGAC
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                                                                                                           Massachusetts
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Best Local Similarity:
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INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
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APPLICATION NUMBER: US 60/026

PRILING DATE: 13-SEP-1996

ATTORNEY/AGENT INFORMATION:

NAME: MANDERS AMY E.

REGISTRATION NUMBER: DFN-

REFERENCE/DOCKET NUMBER: DFN-

TELEPHONE: (617)227-7400

TELEPHONE: (617)742-4214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: PC-DOS/N
SOFTWARE: Patentin Release
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/
FILING DATE: 12-SEP-1997
CLASSIFICATION:
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LOCATION:
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                                                                                          CCTTCAGGTGCGAGATGTTACGTTGATGGATCTGAAGAAATTGGAAGTGACTTTAAGATA
                                                                                                           ProSerGlyThrArgCysTyrValAspGlySerGluGluIleGlyAsnAspPheLysLeu
                                                                                                                                                              AAAGTGAAAAAAAGCTCCTGGTGTTGCAAATAAGAAGATTCATCTGGTAGTTCTTGTTAAG
                                                                                                                                                                                    LysValLysLysAlaProGlyValGlyAsnLysLysIleGlnLeuThrValLeuLeuLys
                                                                                                                                                                                                                                                            GlyAspAlaSerIleAsnValThrAsnLeuGlnLeuSerAspIleGlyThrTyrGlnCys
                                                                                                                                                                                                                                                                                                              GATGACTATCCAGATCTGAAAGGCCGAGTACATTTTACGAGTAATGATCTCAAATCT
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                    AAATGTGAACCAAAAGAAGGTTCACTTCCATTACAGTATGAGTGGCAAAAATTGTCTGAC
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n Release #1.0, Version
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Matches:
Conservative:
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STREET: 28 St.
CITY: Boston
STATE: Massac
COUNTRY: USA

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  Percent Similarity:
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                                                            US-08-928-383B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1, Applic
Patent No. 6210921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Robert
APPLICANT: and Ma
                                                                                                                                                                        TELEFAX: (617)742-4214
INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOTTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/928,38:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Robert W. Finberg, Jeffrey M.
APPLICANT: and Marshall S. Horwitz
TITLE OF INVENTION: CAR, A No. 6210921el
TITLE OF INVENTION: Receptor
NUMBER OF SEQUENCES: 26
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 6:
FILING DATE: 13-SEP-1996
ATTORNEY/AGENT INFORMATION:
                                                                                            MOLECULE TYPE: FEATURE:
                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 1584 base pair
                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: DF
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                          No.:
                                                                       NAME/KEY:
                                                                                                                                                                                                                      NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REGISTRATION NUMBER: DFN-020
                                                                                                                    TOPOLOGY:
                                                                                                                           STRANDEDNESS: single
                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: US
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                                                                                                                                                   1584 base pairs
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12-SEP-1997
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             Length:
Matches:
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US-09-899-634C-2 (1-261) x US-08-928-383B-1 (1-1584)
Sequence 25, Application US/08928383B
Patent No. 6210921
GENERAL INFORMATION:
APPLICANT: Robert W. Finberg, Jeffrey M. Bergelson,
APPLICANT: and Marshall S. Horwitz
TITLE OF INVENTION: CAR, A No. 6210921el Coxsackievirus and
TITLE OF INVENTION: Receptor
NUMBER OF SEQUENCES: 26
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Best Local Similarity:
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
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APPLICATION NUMBER:
FILING DATE: 13-SEP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
LOCATION:
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TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207
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OPERATING SYSTEM: PC-DOS/MS-DOS
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STREET: 28 State Street
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Matches:
Conservative:
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Gaps:
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APPLICANT: Old, L1
APPLICANT: Simpson
APPLICANT: Catimel
APPLICANT: Heath,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 23, Application US/08597495B Patent No. 5712369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent No.
                                                                                          INFORMATION FOR SEQ ID NO:
                                                                                                                                       NAME: Hanson, No. 5712369man D. REGISTRATION NUMBER: 30,946
REFERENCE/DOCKET NUMBER: LUD 531
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                 APPLICATION NUMBER: 08/511,876
FILING DATE: 04-Aug-1995
ATTORNEY/AGENT INFORMATION:
NAME: Hanson, No. 5712369man D
                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/597,495B
FILING DATE: 02-Feb-1996
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Wordperfect CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 10022
COMPUTER READABLE FORM:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION:
           TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                            TELEPHONE: (212)
TELEFAX: (212) 8
                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM:
SOFTWARE: Wordper
                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE:
TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER:
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                                                    LENGTH:
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New York City
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                                                    960 nucleotides
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                                                                                                                                                                                                                                                                                                                                                                                                            E: Diskette, 3.5
IBM PS/2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Lloyd J.;
                                                                                                          2) 688-9200
838-3884
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Alignment Scores:

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Percent Similarity:
Best Local Similarity:
Query Match:
DB:
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US-09-068-051A-23
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Sequence 23, Application US/09068051A

Sequence 23, Application US/09068051A

PATENT NO. 6291235

GENERAL INFORMATION:

APPLICANT: Old, Lloyd J.; Welt, Sydney; Ritter, Gerd; Simpson, Richard J.; Nice, Edouard; Moritz, Catimel, B.; Ji, Hong; Burgess, Anthony W.;
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Best Local Similarity:
Query Match:
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                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-899-634C-2 (1-261) x US-09-068-051A-23 (1-960)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment
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SEQUENCE CHARACTERISTICS:
LENGTH: 960 nucleotides
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/09/068,051
FILING DATE: 10-Dec-1998
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: 08/597,495
FILING DATE: 02-Feb-1996
APPLICATION NUMBER: 08/511,876
FILING DATE: 04-Aug-1995
ATTORNEY/AGENT INFORMATION:
NAME: HANSON, NO. 6291235man D.
REGISTRATION NUMBER: 30,946
REFERENCE/DOCKET NUMBER: LUD 5316
TELEPHONE: (212) 318-3168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette, 3.5 in

COMPUTER: IBM PS/2

OPERATING SYSTEM: PC-DOS

SOFTWARE: Wordperfect

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Heath, Joan K.; White, Sara J.; Johnstone, TITLE OF INVENTION: Colon Cell And Colon Cancer Cell Associated Nucleic Acid Molecules,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Fulbright & Jaworski
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   GlnAspLeuLysGlyArgValHisPheThrSerAspAspLeuLysSerGlyAspAlaSer
                                                                                                                                                            ValAspGlnValIleIleLeuTyrSerGlyAspLys-----IleTyrAspAspTyrTyr
                                                                                                                                                                                                       CGAGAGGGACTT---ATTCAATGGGATAAGCTCCTCCTCACT--
                                                                                                                                                                                                                             GlnGlyProLeuAspIleGluTrp------LeuLeuSerProAlaAspAsnGlnLys
                                                                                                                                                                                                                                                                                                                                                 CTCTGTGCAGTCAGGGTGACCGTCGATGCCATCTCTGTGGAAACTCCGCAGGACGTTCTT
                                                                                                                                ACGGAAAGGGTGGTCATCTGGCCGTTTTCAAACAAAAACTACATCCATGGTGAGCTTTAT
                                                                                                                                                                                                                                                                            CGGGCTTCGCAGGGAAAGAGTGTCACCCTGCCCTGCCACCTACCACCTTCCACCTCCAGT 153
                                                                                                                                                                                                                                                                                                                                                                                  LeuCysGlyValAlaAspLeuThrArgSerLeuSerIleThrThrProGluGlnMetIle
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TELEFAX: (212) 7
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RESULT 7
US-08-597-495B-29
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Simpson, Richard J.; Welt, Sydney; Ritter, Gerd;
APPLICANT: Catimel, B.; Ji, Hong; Burgess, Anthony W.;
APPLICANT: Heath, Joan K.; White, Sara J.; Johnstone, Cameron
TITLE OF INVENTION: Colon Cell And Colon Cancer Cell
TITLE OF INVENTION: Associated Nucleic Acid Molecules, Protein
NUMBER OF SEQUENCES: 29
CORRESPONDENCE ADDRESS:
ADDRESSEE: Felfe for The Richard Colon Colon Cell Felfe For Suppression Colon Cell Felfe For Suppression Colon Cell Felfe For Suppression C
TELEFAX: (212) 838-3884
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                        APPLICATION NUMBER: 08/511,876
FILING DATE: 04-Aug-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                  APPLICATION NUMBER: US/08/597,495B FILING DATE: 02-Feb-1996 CLASSIFICATION: 435 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 10022
COMPUTER READABLE FORM:
                                                  TELEPHONE: (212) 688-9200
                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: Wordperfect CURRENT APPLICATION DATA:
                                                                                                 NAME: Hanson, No. 5712369man D. REGISTRATION NUMBER: 30,946 REFERENCE/DOCKET NUMBER: LUD 53
                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Diskette, 3.5 inch,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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T: 805 Third Avenue
New York City
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STRANDEDNESS: single
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US-09-068-051A-31
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GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE DESCRIPTION: SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RAME: Hanson, No. 6291235man D.
REGISTRATION NUMBER: 30,946
REFERENCE/DOCKET NUMBER: LUD 5316.2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 318-3168
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SOFTWARE: Wordperfect
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Diskette,
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CORRESPONDENCE ADDRESS:
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ValAspGlnValIleIleLeuTyrSerGlyAspLys-----IleTyrAspAspTyrTyr
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                                                                             GlnGlyProLeuAspIleGluTrp-----LeuLeuSerProAlaAspAsnGlnLys
                                                                                                                                                                        CTCTGTGCAGTCAGGGTGACCGTCGATGCCATCTCTGTGGAAACTCCGCAGGACGTTCTT
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                                                  CGAGAGGGACTT---ATTCAATGGGATAAGCTCCTCCTCACT--
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FILING DATE: 04-Aug-1995
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US-09-899-634C-2 (1-261) x US-09-336-536-68 (1-2793)
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                                                                                                                                                                                                                                                                                     SEQ ID NO 68
LENGTH: 279
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 6406884
                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: Bossone, S.
APPLICANT: Bossone, S.
TITLE OF INVENTION: SECRETED PROTEINS AND
FILE REFERENCE: 7853-144
                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                            ORGANISM: Homo
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10 LeuCysGlyValAlaAspLeuThrArgSerLeuSerIleThrThrProGluGlnMetIle 29

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RESULT 10
US-09-068-051A-33
                                                                                                                                                                                                                                                   Sequence 33, Application Patent No. 6291235
GENERAL INFORMATION:
                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Fulbright & Jaworski LLP
                                                                                                                                    APPLICANT: Old, Lloyd J.; Welt, Sydney; Ritter, Gerd;
Simpson, Richard J.; Nice, Edouard; Moritz, R. L.;
Catimel, B.; Ji, Hong; Burgess, Anthony W.;
Heath, Joan K.; White, Sara J.; Johnstone, Cameron
TITLE OF INVENTION: Colon cell And Colon Cancer Cell
Associated Nucleic Acid Molecules, Proteir
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                                                                                                                       NUMBER OF SEQUENCES:
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COUNTRY: USA
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Query Match:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 2803 nucleotides
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
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FILING DATE: 02-Feb-1996
APPLICATION NUMBER: 08/511,876
FILING DATE: 04-Aug-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 318-3168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
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                      TCCAAACCAGAATGCGGCATCGAGGGAGAGACCATAATTGGGAACAACATCCAGCTGACC
                                                 SerGlyThrArgCysTyrValAspGlySerGluGluIleGlyAsnAspPheLysLeuLys
                                                                                                 ATGTCAGACCTGGAGGGCAACACCAAGTCACGTGTCCGCCTGTTGGTCCTCGTGCCACCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/068,051A FILING DATE: 10-Dec-1998 CLASSIFICATION: 435
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US-09-484-970B-161
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Query Match:
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; NAME/KEY: misc_feature
; OTHER INFORMATION: Incyte ID
US-09-484-970B-161
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CURRENT APPLICATION NUMBER: US/09/484,970B
CURRENT FILING DATE: 2000-01-18
NUMBER OF SEQ ID NOS: 172
SOFTWARE: PERL Program
SEQ ID NO 161
LENGTH: 2184
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Jones, Karen A.
APPLICANT: Volkmuth, Wayne
APPLICANT: Walker, Michael G.
TITLE OF INVENTION: BONE REMODELING GENES
FILE REFERENCE: PB-0014 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
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                         LysLysIleGlnLeuThrValLeuLeuLysProSerGlyThrArgCysTyrValAspGly
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AGCCATGTCATCTTAAAAGTCTTAGTGAGACCATCCAAGCCCCAAGTGTGAGTTGGAAGGA
                                                                                                                              GTGGCCTTTGCTTCCAATTTCCTG----GCAGGAGATGCCTCCTTGCAGATTGAACCTCTG
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                                                                AAGCCCAGTGATGAGGGCCGGTACACCTGTAAGGTTAAGAATTCAGGGCGCCTACGTGTGG
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DB:
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Best Local Similarity:
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CURRENT FILING DATE: 1998-10-20
NUMBER OF SEQ ID NOS: 62
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APPLICANT: McCoy, John M.
APPLICANT: LaVallie, Edward
APPLICANT: Collins-Racie, Li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Merberg, David
APPLICANT: Treacy, Maurice
APPLICANT: Mi, Sha
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TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES ENCODING THEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Evans, Cheryl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
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  67
                                                                                          47 ProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSerProAlaAspAsnGlnLys 66
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                                                                                                                                                                                    27 GlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuProCysArgPheThrLeuGly 46
                                                                                                                                                                                                                                                                               PheValLeuLeuCysGlyValAlaAspLeuThrArgSerLeuSerIleThrThrProGlu
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ValAspGlnValIleIleLeuTyrSer-----GlyAspLysIleTyrAspAspTyrTyr 84
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; TYPE: DNA
; ORGANISM: Mus musculus
US-09-336-536-38
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                                                              US-09-899-634C-2 (1-261) x US-09-336-536-38 (1-1182)
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                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                            SEQ ID NO 38
                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                    Sequence 38, Application Patent No. 6406884
                                                                                                                                                                                                                                                    APPLICANT: Leiby, K.
APPLICANT: McKay, C.
APPLICANT: McKay, C.
APPLICANT: Bossone, S.
TITLE OF INVENTION: SECRETED PROTEINS AND USES THEREOF
FILE REFERENCE: 7853-144
CURRENT FILING TATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: Patentin Ver. 2.0
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             CTGCGGGTTTTGTTCCTGGGACTGAGTACCCTTGCTGCCTTCTCCCGAGCTCAGATGGAG
                                   LeuLeuLeuCysPheValLeuLeuCysGlyValAlaAspLeuThrArgSer-----
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                                              CURRENT APPLICATION NUMBER: US/09/336,536
CURRENT FILING DATE: 1999-06-18
NUMBER OF SEQ ID NOS: 75
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 37
LENGTH: 1846
                                                                                                                                                                                                                                Sequence 37, Application US/09336536
PATENT NO. 6406884
GENERAL INFORMATION:
APPLICANT: Leiby, K.
APPLICANT: MCKAY, C.
APPLICANT: BOSSORIE, S.
TITLE OF INVENTION: SECRETED PROTEINS
                                                                                                                                                                                                             FILE REFERENCE: 7853-144
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Percent Similarity:
Best Local Similarity:
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DB:
                ; Sequence 2, Application t
; Patent No. 5942606
; GENERAL INFORMATION:
APPLICANT: La1, Preet
APPLICANT: Corley, No.
APPLICANT: Lal, Preeti
APPLICANT: Corley, Neil C.
TITLE OF INVENTION: VIRAL RECEPTOR PROTEIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM: DOS
SOFTWARE: FASCSEQ for Windows V.
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/979,4:
FILING DATE: Filed Herewith
CLASSIFICATION:
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-C
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650.855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY: linea:
IMMEDIATE SOURCE:
LIBRARY: LUNGFE:
CLONE: 1232054
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LENGTH: 1387 base pairs
TYPE: nucleic acid
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CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharm
STREET: 3174 Porter Dr.
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STATE: CA
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                                                                                                                                                                                                                                                                                                                                                                                                                   3 LeuLeuLeuCysPheValLeuLeuCysGlyValAlaAspLeuThrArgSer---LeuSer
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                                                                                                                                                                                                                                                                                                                                                                                GlyArgValHisPheThrSerAsnAspLeuLysSerGlyAspAlaSerIleAsnValThr 108
                                                                                                                                                              TGGTTCTTCAAA-----CAGAAAGAAAAGGAGGATCAGGTGTTGTCCTACATCAATGGG
                                                                                                                                                                                              TrpLeuLeuSerProAlaAspAsnGlnLysValAspGlnValIleIleLeuTyrSerGly
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                    --TCCATGCCCTCCCGGAACCTGTCCCTGCGGCTGGAG 466
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-DBs-Published_Applications_NA_-OPMT-fastap_SUPFIX=rnpb-_MINMATCH=0.1
-LOOPCL=0 -LOOPEXT=0 -UNITS-bits -START=1 -END=-1 -MATRIX=Dlosum62
-TRAUS=human40.cdi -LIST=45 -DOCALICN=200 -THR_SCORE=pct -THR_MXX=100
-THR_MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0
-MAXLEN=2000000000 -USER=US09899634 @CGN 1 125 @runat 09072003 111142 16473
-NCPU=6 -TCPU=3 -NO_MMAP -LARGEQUERY -NGS_SCORES=0 -MATRIX=DSPBLOCK=100
-LONGLOG -DEV_TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5
-FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Scoring table:
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-MODEL=frame+_p2n.model
                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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seq length: 2000000000
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Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
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/cgn2_6/ptodata/1/pubpna/USO7_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/USO6_PUBCOMB.seq:*
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/cgn2_6/ptodata/1/pubpna/USO7_PUBCOMB.seq:*
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Sequence 77, Appl	9 US-10-176-847-77	9	2473	91.1	1238	4
Sequence 1, Appli	10 US-09-971-798-1	10	2434	91.1	1238	ω
Sequence 3, Appli	US-09-899-634A-3	10	1098	99.6	1353	N
Sequence 1, Appli	10 US-09-899-634A-1	10	4286	100.0	1359	1
Description)	BG	Match Length DB	Macch	NO. Score Match Lengt	20.
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ALIGNMENTS

SULT 1						
·09-899-634A-1						
equence 1, Application US/09899634A	on US/09899634A					
Patent No. US20020059654A1	654A1					
SENERAL INFORMATION:						
APPLICANT: Thomas Buehler, Reto Andreas Gadient, Reinhard Korn, Rao Movva	ehler, Reto Andı	reas Gadient,	Reinhard	Korn,	Rao	Movva
TITLE OF INVENTION: pCAR and its uses	pCAR and its use	S				
FILE REFERENCE: 4-31499A	499A					
CURRENT APPLICATION NUMBER: US/09/899,634A	NUMBER: US/09/89	99,634A				
CURRENT FILING DATE:	2001-07-05			•		
NUMBER OF SEQ ID NOS: 4	. 4					
SOFTWARE: PatentIn version 3.0	ersion 3.0					
SEQ ID NO 1						
LENGTH: 4286						
TYPE: DNA						
ORGANISM: porcine						
FEATURE:						
NAME/KEY: CDS						
LOCATION: (3229)(4014)	4014)					
·09-899-634A-1						
gnment Scores:						
d. No.:	8.61e-172	Length:	4286			
ore:	1359.00	Matches:	261			
cent Similarity:	100.00%	Conservative:	0			
st Local Similarity:	100.00%	Mismatches:	0			
ry Match:	100.00%	Indels:	0			
	10	Gaps:	0			

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RESULT 2
US-09-899-634A-3
; Sequence 3, Application US/09899634A
; Patent No. US20020059654A1
; Patent No. US20020059654A1
; PAPLICANT: Thomas Buehler, Reto Andreas Gaverner of Invention: pCAR and its uses
; TITLE OF INVENTION: pCAR and its uses
; FILE REFERENCE: 4-31499A
; CURRENT APPLICATION NUMBER: US/09/899,634A
; CURRENT FILING DATE: 2001-07-05
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
; SEQ ID NO 3
; LENGTH: 1098
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Sequence 1, Application US/09971798
; Patent No. US20020132769A1
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FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(1098)
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GENERAL INFORMATION:
APPLICANT: NO. US20020132769Alartis AG
ITITLE OF INVENTION: Targeting molecules
FILE REFERENCE: 4-31615/GTI
CURRENT APPLICATION NUMBER: US/09/971,798
CURRENT FILING DATE: 2001-10-05
NUMBER OF SEQ ID NOS: 31
SOPTWARE: Patentin version 3.1
SEQ ID NO 1
LENGTH: 2434
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Query Match:
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; LOCATION: (60)..(1
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ORGANISM: Homo
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Sequence 77, Application US/10176847

Publication No. US20030068636A1

GENERAL INFORMATION:
APPLICANT: Veiby, Petter Ole
TITLE OF INVENTION: COMPOSITIONS, KITS, AND METHODS FOR
TITLE OF INVENTION: IDENTIFICATION, ASSESSMENT, PREVENTION
TITLE OF INVENTION: AND OVARIAN CANCER
FILE REFERENCE: MRI-039
CURRENT APPLICATION NUMBER: US/10/176,847
CURRENT FILING DATE: 2002-06-21
NUMBER OF SEQ ID NOS: 112
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Best Local Similarity:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match:
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SEQ ID NO 77
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TYPE: DNA
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                                                                    LysValLysLysAlaProGlyValGlyAsnLysLysIleGlnLeuThrValLeuLeuLys
                                                                                                                           GlyAspAlaSerIleAsnValThrAsnLeuGlnLeuSerAspIleGlyThrTyrGlnCys
                                                                                                                                                                                                                                      ProAlaAspAsnGlnLysValAspGlnVallleIleLeuTyrSerGlyAspLysIleTyr
                                                                                                                                                                                                                                                                                           CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
                                                                                                                                                                                                                                                                                                                                     AGTATCACTACTCCTGAAGAGATGATTGAAAAAGCCAAAGGGGGAAACTGCCTATCTGCCA
                                                                                                                                                                                                                                                                                                                                                     SerIleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                           MetAlaLeuLeuCysPheValLeuCysGlyValAlaAspLeuThrArgSerLeu
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                                                                                                                                                                                  AspAspTyrTyrGlnAspLeuLysGlyArgValHisPheThrSerAsnAspLeuLysSer
                                                                                                                                                                                                                                                                                                                                                                                           ATGGCGCTCCTGCTGTTCGTGCTCCTGTGCGGAGTAGTGGATTTCGCCAGAAGTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCCATTATAGGAACTTTGCTTGCTCTAGCGCTCATTGGTCTTATCATCTTTTGCTGT
CCTTCAGGTGCGAGATGTTACGTTGATGGATCTGAAGAAATTGGAAGTGACTTTAAGATA
                                                                                                                                                                                                                       CCAGCTGATAATCAGAAGGTGGATCAAGTGATTATTTTATATTCTGGAGACAAAATTTAT
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Matches:
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APPLICANT: Wood, William I.

APPLICANT: Zhang, Zemin

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucl

TITLE OF INVENTION: Acids Encoding the Same

FILE REFERENCE: P2730P1C20

CURRENT APPLICATION NUMBER: US/09/992,598

CURRENT FILING DATE: 2001-11-14

PRIOR APPLICATION NUMBER: 60/049787

PRIOR APPLICATION NUMBER: 60/06250

PRIOR FILING DATE: 1997-10-17

PRIOR FILING DATE: 1997-10-17

PRIOR APPLICATION NUMBER: 60/065186

PRIOR APPLICATION NUMBER: 60/065311

PRIOR APPLICATION NUMBER: 60/065311

PRIOR FILING DATE: 1997-11-13

PRIOR FILING DATE: 1997-11-13

PRIOR APPLICATION NUMBER: 60/065311

PRIOR APPLICATION NUMBER: 60/065311
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US-09-992-598-504
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APPLICANT: Ashkenazi, Avi J.
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                                       APPLICATION NUMBER: 60/075945 FILING DATE: 1998-02-25 APPLICATION NUMBER: 60/078910
                                                                                                APPLICATION NUMBER: 60/066770 FILING DATE: 1997-11-24
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Watanabe, Colin K.
Williams, P. Mickey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Roy, Margaret Ann
Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
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Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Napier, Mary A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kljavin,
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    NUMBER: 60/083322
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OR APPLICATION NUMBER: 60/088326
OR FILING DATE: 1998-06-04
OR APPLICATION NUMBER: 60/088167
OR FILING DATE: 1998-06-05
OR APPLICATION NUMBER: 60/088202
OR FILING DATE: 1998-06-05
OR APPLICATION NUMBER: 60/088212
OR APPLICATION NUMBER: 60/088217
OR APPLICATION NUMBER: 60/088217
OR FILING DATE: 1998-06-05
DR FILING DATE: 1998-06-16

R APPLICATION NUMBER: 60/089532

DR FILING DATE: 1998-06-17

DR APPLICATION NUMBER: 60/089538

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DR APPLICATION NUMBER: 60/089598

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DR APPLICATION NUMBER: 60/089599

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R APPLICATION NUMBER: 60/01
R FILING DATE: 1998-05-07
R RAPPLICATION NUMBER: 60/01
R FILING DATE: 1998-05-28
R APPLICATION NUMBER: 60/01
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FILING DATE: 1998-06-10
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APPLICATION NUMBER: 60/088861
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APPLICATION NUMBER: 60/088742
FILING DATE: 1998-06-10
APPLICATION NUMBER: 60/088810
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FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088029
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APPLICATION NUMBER: 60/087827
FILING DATE: 1998-06-03
APPLICATION NUMBER: 60/088021
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FILING DATE: 1998-06-02
APPLICATION NUMBER: 60/087759
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APPLICATION NUMBER: 60/088876
FILING DATE: 1998-06-11
APPLICATION NUMBER: 60/089105
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APPLICATION NUMBER: 60/089514
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APPLICATION NUMBER: 60/089512
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APPLICATION NUMBER: 60/088738
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APPLICATION NUMBER: 60/088734
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                                                   GlyAlaValIleGlyValLeuLeuAlaLeuValLeuIleGlyLeuIleIlePheCysCys
                                                                                GATCAGTGCCTGTTGCGTCTAAACGTTGTCCCTTCCAAATAAAGCTGGACTAATTGCA
                                                                                                                      AsnalaSerThrGluTyrSerGlyThrTyrSerCysThrValLysAsnArgValGlySer
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APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides
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FILE REFERENCE: P2730P1C66
FILE REFERENCE: P2730P1C66
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CURRENT FILING DATE: 2001-11-20
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APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
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Godowski, Paul J.
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Gerber, Hanspeter
Gerritsen, Mary E.
Geddard, Audrey
Goddwski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Kljavin, Ivar J.
Napier, Mary A.
Pan, James
Paoni, Nicholas F.
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Baton, Dan L.
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Botstein, David
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CURRENT APPLICATION NUMBER: US/09/989,735
CURRENT FILING DATE: 2001-11-19
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/065186
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OR APPLICATION NUMBER: 60/090535

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PR APPLICATION NUMBER: 60/089801

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PR APPLICATION NUMBER: 60/089907

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APPLICATION NUMBER: 60/090349
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APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Watanabe, Colin K.
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William I.
APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Acids Encoding the :
FILE REFERENCE: P2730F1C19
CURRENT APPLICATION NUMBER: US/09/990,44-
CURRENT FILING DATE: 2001-11-14
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/065186
PRIOR APPLICATION NUMBER: 60/065186
PRIOR APPLICATION NUMBER: 60/06511
PRIOR APPLICATION NUMBER: 60/06511
PRIOR APPLICATION NUMBER: 60/06570
PRIOR FILING DATE: 1997-11-13
PRIOR APPLICATION NUMBER: 60/066770
PRIOR FILING DATE: 1997-11-24
PRIOR APPLICATION NUMBER: 60/06770
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Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
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Baker, Kevin P.
Botstein, David
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Stewart, Timothy A.
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Eaton, Dan L.
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; Sequence 9, Application US/1
publication No. US2002019275
; GENERAL INFORMATION:
APPLICANT: Goddard, Audrey
APPLICANT: Godowski, Paul J
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PRIOR FILING DATE: 1998-11-10
PRIOR APPLICATION NUMBER: 60/108802
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                OR APPLICATION NUMBER: PCT/US01/19692
OR FILING DATE: 2001-06-20
OR APPLICATION NUMBER: PCT/US01/21066
OR FILING DATE: 2001-06-29
OR APPLICATION NUMBER: PCT/US01/21735
OR APPLICATION NUMBER: PCT/US01/21735
OR FILING DATE: 2001-07-09

UBER OF SEQ ID NOS: 14
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OR APPLICATION NUMBER: 60/131291
OR FILING DATE: 1999-04-27
OR APPLICATION NUMBER: 60/151733
OR FILING DATE: 1999-08-31
OR APPLICATION NUMBER: 60/209832
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OR APPLICATION NUMBER: 60/232887
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OR APPLICATION NUMBER: PCT/US00/13705

OR FILING DATE: 2000-05-17

OR APPLICATION NUMBER: PCT/US00/14042

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OR APPLICATION NUMBER: PCT/US00/15264
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APPLICATION NUMBER: 09/218517
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APPLICATION NUMBER: PCT/US99/00106
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APPLICATION NUMBER: PCT/US00/23522
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APPLICATION NUMBER: PCT/US99/20111
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GENERAL INFORMATION:
APPLICANT: Ashkenazi Avi J.
APPLICANT: Baker, Kevin P.
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CURRENT FILING DATE: 2001-11-20
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/065186
PRIOR APPLICATION NUMBER: 60/065186
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OR APPLICATION NUMBER: 60/08709
OR APPLICATION NUMBER: 60/083322
OR FILING DATE: 1998-03-20
R FILING DATE: 1998-04-28
OR APPLICATION NUMBER: 60/084600
OR FILING DATE: 1998-05-07
OR APPLICATION NUMBER: 60/087607
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OR APPLICATION NUMBER: 60/087827
OR APPLICATION NUMBER: 60/088021
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APPLICATION NUMBER: 60/065311
FILING DATE: 1997-11-13
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APPLICATION NUMBER: 60/075945
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Roy, Margaret Ann
Stewart, Timothy
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Godowski, Paul
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Gerber, Hanspeter
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Napier, Mary A.
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APPLICATION NUMBER: 60/088824 FILING DATE: 1998-06-10

APPLICATION NUMBER: 60/088826 FILING DATE: 1998-06-10 APPLICATION NUMBER: 60/088858

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DR APPLICATION NUMBER: 60/088734
DR FILLING DATE: 1998-06-10
PR APPLICATION NUMBER: 60/088738
DR FILLING DATE: 1998-06-10
PR APPLICATION NUMBER: 60/088742
DR FILLING DATE: 1998-06-10
DR APPLICATION NUMBER: 60/08810
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OR APPLICATION NUMBER: 60/090863
OR FILING DATE: 1998-06-26
OR APPLICATION NUMBER: 60/091360
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IR APPLICATION NUMBER: 60/091633
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R APPLICATION NUMBER: 60/090431

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APPLICATION NUMBER: 60/090535
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APPLICATION NUMBER: 60/091519
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41 CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
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                                                                SerIleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuPro
                                       AGTATCACTACTCCTGAAGAGATGATTGAAAAAGCCAAAGGGGAAACTGCCTATCTGCCA
                                                                                                                         ATGGCGCTCCTGCTGCTTCGTGCTCCTGTGCGGAGTAGTGGATTTCGCCAGAAGTTTG
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60/089532 60/089514 FILING DATE: 1998-06-12
APPLICATION NUMBER: 60/089440
FILING DATE: 1998-06-16
APPLICATION NUMBER: 60/089512

APPLICATION NUMBER: 60/089105 FILING DATE: 1998-06-11 APPLICATION NUMBER: 60/088876 FILING DATE: 1998-06-11 APPLICATION NUMBER: 60/088861

APPLICATION NUMBER: 60/089538 FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/089598

DR FILING DATE: 1998-06-18

OR APPLICATION NUMBER: 60/089908

OR FILING DATE: 1998-06-18

OR APPLICATION NUMBER: 60/089947

OR APPLICATION NUMBER: 60/089948

OR APPLICATION NUMBER: 60/089948

OR FILING DATE: 1998-06-19

OR APPLICATION NUMBER: 60/089952

OR FILING DATE: 1998-06-19

OR APPLICATION NUMBER: 60/08952

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OR APPLICATION NUMBER: 60/090252

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APPLICATION NUMBER: 60/089653
FILING DATE: 1998-06-17
APPLICATION NUMBER: 60/089801

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   Roy, .... Stewart, Times
Stewart, Daniel
                                                                                 Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Kljavin, Ivar J.
Napier, Mary A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTGATGCATCAATAAATGTAACGAATTTACAACTGTCAGATATTGGCACATATCAGTGC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspAspTyrTyrGlnAspLeuLysGlyArgValHisPheThrSerAsnAspLeuLysSer
                         Paoni, Nicholas F.
Roy, Margaret Ann
Stewart, Timothy A
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Botstein, David
Desnoyers, Luc
Eaton, Dan L.
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                                                                                                                                                                        Gerber, Hanspeter
Gerritsen, Mary E.
                                                                                                                                                                                                     Fong, Sherman
                                                                                                                                                                                                                     Ferrara, Napoleone
 Watanabe,
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APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730P1C14
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DR APPLICATION NUMBER: 60/088326

DR FILING DATE: 1998-06-04

DR APPLICATION NUMBER: 60/088167

DR FILING DATE: 1998-06-05

DR APPLICATION NUMBER: 60/088202

DR APPLICATION NUMBER: 60/088202

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DR APPLICATION NUMBER: 60/088212

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DR FILING DATE: 1998-04-28

DR APPLICATION NUMBER: 60/084600

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FILING DATE: 1998-06-04
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FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088025
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APPLICATION NUMBER: 60/087759
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APPLICATION NUMBER: 60/087827
FILING DATE: 1998-06-03
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APPLICATION NUMBER: 60/065311
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APPLICATION NUMBER: 60/066770
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FILING DATE: 1997-06-16
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Wood, William J
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APPLICATION NUMBER: 60/089514 FILING DATE: 1998-06-16 APPLICATION NUMBER: 60/089532

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FILING DATE: 1998-06-17
APPLICATION NUMBER: 60/089538
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APPLICATION NUMBER: 60/089598

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APPLICATION NUMBER: 60/089105
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APPLICATION NUMBER: 60/089440

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OR FILING DATE: 1998-06-26
OR APPLICATION NUMBER: 60/090862
OR APPLICATION NUMBER: 60/090863
OR APPLICATION NUMBER: 60/090863
OR FILING DATE: 1998-06-26
OR APPLICATION NUMBER: 60/091360
OR FILING DATE: 1998-07-01
OR APPLICATION NUMBER: 60/091478
OR APPLICATION NUMBER: 60/091478
OR APPLICATION NUMBER: 60/091514
OR APPLICATION NUMBER: 60/091519
OR APPLICATION NUMBER: 60/091626
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091626
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091633
OR APPLICATION NUMBER: 60/091633
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091978
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                                                                                                                   LysValLysLysAlaProGlyValGlyAsnLysLysIleGlnLeuThrValLeuLeuLys
                                                                                                                                                                                                         GlyAspAlaSerIleAsnValThrAsnLeuGlnLeuSerAspIleGlyThrTyrGlnCys
                                                                                                                                                                                                                                                                                                                                                                                                 ProAlaAspAsnGlnLysValAspGlnVallleIleLeuTyrSerGlyAspLysIleTyr
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerIleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuPro
                             ProSerGlyThrArgCysTyrValAspGlySerGluGluIleGlyAsnAspPheLysLeu
                                                                                   AAAGTGAAAAAAGCTCCTGGTGTTGCAAATAAGAAGATTCATCTGGTAGTTCTTGTTAAG
                                                                                                                                                                                GTGATGCATCAATAAATGTAACGAATTTACAACTGTCAGATATTGGCACATATCAGTGC
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                                                                                                                                                                                                                                                                                                    AspAspTyrTyrGlnAspLeuLysGlyArgValHisPheThrSerAsnAspLeuLysSer
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Matches:
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DR FILING DATE: 1998-06-24

PR APPLICATION NUMBER: 60/090435

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PR APPLICATION NUMBER: 60/090472

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PR APPLICATION NUMBER: 60/090535

PR FILING DATE: 1998-06-24

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DR FILING DATE: 1998-06-19

R APPLICATION NUMBER: 60/090246

DR FILING DATE: 1998-06-22

PR APPLICATION NUMBER: 60/090252

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DR APPLICATION NUMBER: 60/090254

DR APPLICATION NUMBER: 60/090349

DR FILING DATE: 1998-06-23

DR APPLICATION NUMBER: 60/090355

DR FILING DATE: 1998-06-23

DR APPLICATION NUMBER: 60/090355

DR APPLICATION NUMBER: 60/090359

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DR APPLICATION NUMBER: 60/090359

DR APPLICATION NUMBER: 60/090429

DR FILING DATE: 1998-06-24

DR PILING DATE: 1998-06-24

DR PILING DATE: 1998-06-24

APPLICATION NUMBER: 60/090431

FILING DATE: 1998-06-19
APPLICATION NUMBER: 60/089948
FILING DATE: 1998-06-19
APPLICATION NUMBER: 60/089952

FILING DATE: APPLICATION 1

NUMBER: 60/089947

1998-06-18

APPLICATION NUMBER: 60/089801
FILING DATE: 1998-06-18
APPLICATION NUMBER: 60/089907
FILING DATE: 1998-06-18
APPLICATION NUMBER: 60/089908

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RESULT 12
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APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein T.
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APPLICANT:
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APPLICANT: Zhang, Zemin

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides

TITLE OF INVENTION: Acids Encoding the Same

FILE REFERENCE: P2730P1CS3

CURRENT APPLICATION NUMBER: US/09/991,181

CURRENT FILING DATE: 2001-11-16
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FILING DATE: 1997-06-16
APPLICATION NUMBER: 60/062250
FILING DATE: 1997-10-17
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Stewart, ...
Stewart, ...
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Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kljavin, Ivar
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Godowski, Paul J.
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                                   NUMBER: 60/075945
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OR FILING DATE: 1998-06-17

RAPPLICATION NUMBER: 60/089538

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OR APPLICATION NUMBER: 60/089598

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REFILING DATE: 1998-06-17
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APPLICATION NUMBER: 60/088924
FILING DATE: 1998-06-10
APPLICATION NUMBER: 60/088926
FILING DATE: 1998-06-10
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FILING DATE: 1998-06-05
APPLICATION NUMBER: 60/088217
FILING DATE: 1998-06-05
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APPLICATION NUMBER: 60/088167
FILING DATE: 1998-06-05
APPLICATION NUMBER: 60/088202
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FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088026
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FILING DATE: 1998-06-03
APPLICATION NUMBER: 60/088021
FILING DATE: 1998-06-04
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APPLICATION NUMBER: 60/084600
FILING DATE: 1998-05-07
APPLICATION NUMBER: 60/087106
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APPLICATION NUMBER: 60/088742
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APPLICATION NUMBER: 60/088810
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APPLICATION NUMBER: 60/088738
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FILING DATE: 1998-06-09
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APPLICATION NUMBER:
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APPLICATION FILING DATE: APPLICATION FILING DATE:

NUMBER: 60: 1998-06-1

60/089600

DR APPLICATION NUMBER: 60/089653
DR FILING DATE: 1998-06-17
DR APPLICATION NUMBER: 60/089801
DR FILING DATE: 1998-06-18
DR APPLICATION NUMBER: 60/089907
DR FILING DATE: 1998-06-19
DR APPLICATION NUMBER: 60/089908
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DR APPLICATION NUMBER: 60/08952
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DR APPLICATION NUMBER: 60/090254
DR FILING DATE: 1998-06-22
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REFILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/091982
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/092182
OR FILING DATE: 1998-07-09
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              Arg
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CGT
                                                 GlyAlaValIleGlyValLeuLeuAlaLeuValLeuIleGlyLeuIleIlePheCysCys
                                                                            AATGCCTCTTCTGAGTACTCTGGGACATACAGCTGTACAGTCAGAAACAGAGTGGGCTCT
                                                                                                                                AsnAlaSerThrGluTyrSerGlyThrTyrSerCysThrValLysAsnArgValGlySer
                                                                                                                                                          TCACAGAAAATGCCCACTTCATGGTTAGCAGAAATGACTTCATCTGTTATATCTGTAAAA
                                                                                                                                                                          SerGlnLysLeuProThrLeuTrpLeuAlaGluMetThrSerProValIleSerValLys
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                                       {\sf GGAGCCATTATAGGAACTTTGCTTGCTCTAGCGCTCATTGGTCTTATCATCTTTTGCTGT}
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DR APPLICATION NUMBER: 60/090349
DR FILING DATE: 1998-06-23
DR APPLICATION NUMBER: 60/09035
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DR APPLICATION NUMBER: 60/09042
DR APPLICATION NUMBER: 60/09043
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DR APPLICATION NUMBER: 60/09044
DR FILING DATE: 1998-06-24
DR APPLICATION NUMBER: 60/09044
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DR FILING DATE: 1998-06-24
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DR FILING DATE: 1998-06-24
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DR APPLICATION NUMBER: 60/090863
DR FILING DATE: 1998-06-25
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RESULT 13
US-09-993-687-504
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CURRENT FILING DATE: 2002-11-14
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/065186
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PRIOR FILING DATE: 1997-11-12
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APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730P1C11
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APPLICANT: Baker,Kevin P.
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APPLICATION NUMBER: 60/083322
FILING DATE: 1998-04-28
FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088028
FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088029
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Godowski, Paul J.
Grimaldi, J.Christopher
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o. US20020198149A1
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art, Timothy A.
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DR APPLICATION NUMBER: 60/089952
DR FILLING DATE: 1998-06-19
DR APPLICATION NUMBER: 60/090246
DR FILLING DATE: 1998-06-22
DR APPLICATION NUMBER: 60/090252
DR FILLING DATE: 1998-06-22
DR APPLICATION NUMBER: 60/090254
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FILING DATE: 1998-06-04
APPLICATION NUMBER: 60/088326 APPLICATION NUMBER: 60/089440 FILING DATE: 1998-06-16 APPLICATION NUMBER: 60/089512 APPLICATION NUMBER: 60/088858 FILING DATE: 1998-06-11 FILING DATE: 1998-06-10 APPLICATION NUMBER: 60/088742 FILING DATE: 1998-06-10
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DR APPLICATION NUMBER: 60/090355

DR AFFILING DATE: 1998-06-23

DR APPLICATION NUMBER: 60/090429

DR FILING DATE: 1998-06-24

DR APPLICATION NUMBER: 60/090431
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R FILING DATE: 1998-07-07
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APPLICATION NUMBER: 60/091478
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APPLICATION NUMBER: 60/091360
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APPLICATION NUMBER: 60/090676
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APPLICATION NUMBER: 60/090557
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APPLICATION NUMBER: 60/091633
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                                                                                                   Gerber, Hanspeter
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
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Kljavin, Ivar (
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Eaton, Dan L.
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Botstein, David
    Paoni, Nicholas
                                         Napier, Mary A.
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TITLE OF INVENTION: Secreted and Transmembran
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730PlC64
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R APPLICATION NUMBER: 60/088326

DR FILING DATE: 1998-06-04

DR APPLICATION NUMBER: 60/088167

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DR APPLICATION NUMBER: 60/088202

DR APPLICATION NUMBER: 60/088212

DR FILING DATE: 1998-06-05

DR APPLICATION NUMBER: 60/088212

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APPLICATION NUMBER: 60/075945
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art, Timothy A.
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APPLICATION NUMBER: 60/089512 FILING DATE: 1998-06-16 APPLICATION NUMBER: 60/089514 FILING DATE: 1998-06-16 1998-06-1

FILING DATE: 1998-0 APPLICATION NUMBER: FILING DATE: 1998-0 APPLICATION NUMBER: 60/089532 FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/089599 APPLICATION NUMBER: 60/089538 1998-06-17 1998-06-1 1998-06-17 60/089600 60/089598

APPLICATION NUMBER: 60/089907 FILING DATE: 1998-06-18 APPLICATION NUMBER: 60/089908 FILING DATE: 1998-06-18 APPLICATION NUMBER: 60/089653 FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/089801 FILING DATE: 1998-06-18

APPLICATION NUMBER: 60/089947 FILING DATE: 1998-06-19 APPLICATION NUMBER: 60/089948 1998-06-19 60/089952

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APPLICATION NUMBER: 60/090676 FILING DATE: 1998-06-25 APPLICATION NUMBER: 60/090678

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OR APPLICATION NUMBER: 60/091633
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091978
OR APPLICATION NUMBER: 60/091978
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/091982
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/092182
OR FILING DATE: 1998-07-09
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APPLICATION NUMBER: 60/091544
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APPLICATION NUMBER: 60/090696
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FILING DATE: 1998-06-26
APPLICATION NUMBER: 60/091360
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                   LysValLysLysAlaProGlyValGlyAsnLysLysIleGlnLeuThrValLeuLeuLys
                                                                            GlyAspAlaSerIleAsnValThrAsnLeuGlnLeuSerAspIleGlyThrTyrGlnCys
                                                                                                                          GATGACTACTATCCAGATCTGAAAGGCCGAGTACATTTTACGAGTAATGATCTCAAATCT
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AAAGTGAAAAAAGCTCCTGGTGTTGCAAATAAGAAGATTCATCTGGTAGTTCTTGTTAAG
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APPLICANT: Wood, William I.

APPLICANT: Zhang, Zemin

TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and TITLE OF INVENTION: Acids Encoding the Same

FILE REFERENCE: P2730PLC38

CURRENT APPLICATION NUMBER: US/09/997,653

CURRENT FILING DATE: 2001-11-15

PRIOR APPLICATION NUMBER: 60/049787

PRIOR APPLICATION NUMBER: 60/062250

PRIOR APPLICATION NUMBER: 60/062250

PRIOR APPLICATION NUMBER: 60/065186

PRIOR APPLICATION NUMBER: 60/065311

PRIOR APPLICATION NUMBER: 60/065311

PRIOR APPLICATION NUMBER: 60/065311

PRIOR APPLICATION NUMBER: 60/065311

PRIOR APPLICATION NUMBER: 60/06570

PRIOR FILING DATE: 1997-11-13

PRIOR APPLICATION NUMBER: 60/066770

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Baker, Kevin P.
Botstein, David
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Williams, P. Mickey
Wood, William I.
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Gerritsen, Mary E.
Goddard, Audrey
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Grimaldi, J. Christopher
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Stewart, Timothy A.
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Ferrara, Napoleone
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AspGlnCysLeuLeuArgLeuAspValValProProSerAsnArgAlaGlyThrIleAla
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Search completed: July 12, 2003, 13:41:24 Job time: 149 secs

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Command line parameters:

-MODEL-frame+ p2n.model -DEV-xlh
-Q-/cgp2_1/USPTO_spool/US09899634/runat_09072003_111139_16356/app_query.fasta_1.455
-DB-EST -QFMT=fastap -SUFFIX=rst -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-DB-EST -QFMT=fastap -SUFFIX=rst -MATKIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=50 -MINLEN=0 -MAXLEN=200000000
-USER=US09899634 @CGN 1 1 1456 @runat 09072003 111139 16356 -NCPU=6 -ICPU=3
-NO MMAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPPEXT=0.5 -DELOP=6 -DELEXT=7
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SUMMARIES

Result

Query

AL594 BG96

ALIGNMENTS

REFERENCE AUTHORS TITLE		ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION		DEFINITION	Locus	AL521066	RESULT 1
l (bases 1 to 917) Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	Homo sapiens	human.	EST.	AL521066.1 GI:12784559	AL521066	prime, mRNA sequence.	AL521066 LTI_NFL004_NBC2 Homo sapiens cDNA clone CS0DB001YD23 5	AL521066 917 bp mRNA linear EST 13-FEB-2001		

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Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: segref@genoscope.cns.fr, Web : www
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                                                                                                                                                                                                                                                                                                                         ProAlaAspAsnGlnLysValAspGlnValIleIleLeuTyrSerGlyAspLysIleTyr
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                                                                                                                               AAAGTGAAAAAAGCTCCTGGTGTTGCAAATAAGAAGATTCATCTGGTAGTTCTTGTTAAG
                                                                                                                                                                                       GGTGATGCATCAATAAATGTAACGAATTTACAACTGTCAGATATTGGCACATATCAGTGC
                                                                                                                                                                                                                                               GATGACTACCAGATCTGAAAGGCCGAGTACATTTTACGAGTAATGATCTCAAATCT
                   <u>AAATGTGAACCAAAAGAAGGTTCACTTCCATTACAGTATGAGTGGCAAAAATTGTCTGAC</u>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-stranded cDNA was digested with Not I and cloned into the Not I and Eco RV sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies. Contact: Feng Liang Life Technologies, a division of Invitrogen 9800 Medical Center Drive Rockville, Maryland 20850, USA Fax: (1) 301 610 8371 Email: fliang@lifetech.com URL: http://fulllength.invitrogen.com" 1 others
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/db_xref="taxon:9606"
/clone="CS0DB001YD23"
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Kawai,J., Shinagawa,A., Shibata,K., Yoshino,M., Itoh,M., Ishii,Y., Arakawa,T., Hara,A., Fukunishi,Y., Konno,H., Adachi,J., Fukuda,S., Aizawa,K., Izawa,M., Nishi,K., Kiyosawa,H., Kondo,S., Yamanaka,I., Saito,T., Okazaki,Y., Gojobori,T., Bono,H., Kasukawa,T., Saito,R., Kadota,K., Matsuda,H., Ashburner,M., Batalov,S., Casavant,T., Fleischmann,W., Gaasterland,T., Gissi,C., King,B., Kochiwa,H., Kuehl,P., Lewis,S., Matsuo,Y., Nikaido,I., Pesole,G., Chara,M., Wagner,L., Washio,T., Sataki,K., Okido,T., Furuno,M., Aono,H., Baldarelli,R., Barsh,G., Blake,J., Boffelli,D., Bojunga,N.,
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Shibata,K., Itoh,M., Aizawa,K., Nagaoka,S., Sasaki,N., Carninci,P., Konno,H., Akiyama,J., Nishi,K., Kitsunai,T., Tashiro,H., Itoh,M., Sumi,N., Ishii,Y., Nakamura,S., Hazama,M., Nishine,T., Harada,A., Yamamoto,R., Matsumoto,H., Sakaguchi,S., Ikegami,T., Kashiwagi,K., Fujiwake,S., Inoue,K., Togawa,Y., Izawa,M., Ohara,E., Watahiki,M., Yoneda,Y., Ishikawa,T., Ozawa,K., Tanaka,T., Matsuura,S., Kawai,J., Kashiki,Y., Muzamatsu,M., Inoue,Y., Kira,A. and Hayashizaki,Y., RIKEN integrated sequence analysis (RISA) system--384-format sequencing pipeline with 384 multicapillary sequencer Genome Res. 10 (11), 1757-1771 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Carninci,P., Shibata,Y., Hayatsu,N., Sugahara,Y., Shibata,K., Itoh,M., Konno,H., Okazaki,Y., Muramatsu,M. and Hayashizaki,Y., Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carninci,P. and Hayashizaki,Y. High-efficiency full-length cDNA Meth. Enzymol. 303, 19-44 (1999) 99279253
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Mus musculus adult male liver cDNA, RIKEN full-length enriched
library, clone:1300005A16:coxsackievirus and adenovirus receptor,
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Mus musculus (strain:C57BL/6J) adult
Clone lib:RIKEN full-length enriched
clone:1300005A16.
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Mammalia; Eutheria;
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|GAGCCATTATAGGAACTTTGCTTGCTTAGCGCTCATTGGTCTTATCATCTTTTGCTGT
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REFERENCE AUTHORS

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E 5 (bases 1 to 2731)

S Adachi, J., Aizawa, K., Akahira, S., Akimura, T., Aono, H., Arai, A., S Adachi, J., Aizawa, K., Bono, H., Brownstein, M., Bult, C., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanagaki, T., Hara, A., Hayatsu, N., Hill, D., Hiramoto, K., Hiraoka, T., Hori, F., Hume, D., Imotani, K., Ishi, Y., Itoh, M., Izawa, M., Kasukawa, T., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Miyazaki, A., Nishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Quackenbush, J., Saito, H., Saito, H., Sakai, Y., Okido, T., Owa, C., Quackenbush, J., Sordinl, L., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T., Sogabe, Y., Suzuki, H., Tagami, M., Tagawa, A., Takahashi, F., Tanaka, T., Tejima, Y., Toya, T., Yamamura, T., Yamanaka, I., Yasunishi, A., Yoshida, K., Yoshino, M., Muramatsu, M. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Carninci,P., de Bonaldo,M.F., Brownstein,M.J., Bult,C., Fujita,M., Gasriboldi,M., Gustincich,S., Hill,D., Hofmann,M., Hume,D.A., Kamiya,M., Lee,N.H., Lyons,P., Nordone,P., Marchionni,L., Mashima,J., Mazzarelli,J., Mombaerts,P., Nordone,P., Ring,B., Ringwald,M., Rodriguez,I., Sakamoto,N., Sasaki,H., Sato,K., Schonbach,C., Seya,T., Shibata,Y., Storch,K.F., Suzuki,H., Toyo-oka,K., Wang,K.H., Weitz,C., Wilttaker,C., Wilming,L., Wynshaw-Boris,A., Yoshida,K., Hasegawa,Y., Kawaji,H., Kohtsuki,S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute of Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-res@gsc.riken.go.jp, URL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222, Pax:81-45-503-9216)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cleaved with XhoI and SstI. Cloning sites, 5' end: SstI; 3'
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                  /protein_id="BAB23660.1"
/db_xref="GI:12836448"
                                                                                                                                                                                                                                                                                                                                                                                   /strain="C57BL/6J"
/db_xref="FANTOM_DB:1300005A16"
                                                                                                                           note="coxsackievirus"
                                                                                                                                                  gene="Cxadr"
                                                                                                                                                                                                                                                         tissue_type="liver"
clone_lib="RIKEN fu
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'clone="1300005A16"
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GACCAGTGTATGCTGCGACTAGACGTTGTCCCACCCTCCAACCGAGCCGGAACGATCGCG
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COMMENT

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US-09-899-634C-2 (1-261)
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AspGlnCysLeuLeuArgLeuAspValValProProSerAsnArgAlaGlyThrIleAla
                                                                                     AsnAlaSerThrGluTyrSerGlyThrTyrSerCysThrValLysAsnArgValGlySer
                                                                                                                                                   TCCCAGACAATGCCTACGCCATGGCTGGCAGAAATGACGTCACCAGTTATATCTGTGAAG
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LSPEDQGPLDIEWLISPSDNQIVDQVIILYSGDKIYDNYYPDLKGRVHFTSNDVKSGD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Invitrogen
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
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                            CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer 60
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/db_xref="taxon:9606"
/clone="IMAGE:5730154"
/clone_lb="NIH MGC 124"
/tissue_type="hippocampus"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                 /note="Organ: brain; Vector: pCMV-SPORT6; Site_1: EcoRV (destroyed); Site_2: Not1; RNA source male hippocampus, age 27. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 0.9-4 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 012."
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                              Tissue Procurement: Jeffrey Green M.D. cDNA Library Preparation: Life Technologies, cDNA Library Preparation: Life Technologies, cDNA Library Arrayed by: The I.M.A.G.E. Conso DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution in found through the I.M.A.G.E. Consortium/LLNL a http://imagg.llnl.gov
Plate: LLAM11874 row: h column: 01
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603308304F1_NCI_CGAP_Mam6
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                                                                                                                                                                                                           NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
Unpublished (1999)
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quality sequence stop: 855.
Location/Qualifiers
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Mus musculus cDNA clone IMAGE:5344176
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ySerAspGlnCysLeuLeuArgLeuAspValValProProSerAsnArgAlaGlyThrIl
                                                                        TCCCAGACAATGCCTACGCCATGGCTGGCAGAAATGACGTCACCAGTTATATCTGTGAAG
                                                                                                                                                      SerGlnLysLeuProThrLeuTrpLeuAlaGluMetThrSerProValIleSerValLys
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225 c 222 g 194 t
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/clone lib="NCI CGAP Mam6"
/sex="female, vīrgin"
/tissue_type="infiltrating ductal carcinoma"
/dev_stage="5 months"
/lab_host="DH10B"
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/strain="FVB/N"
/db_xref="taxon:10090"
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Location/Qualifiers
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Tissue Procurement: Life Technologies,
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
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Mammalia; Eutheria;
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ATCACTACTCCTGAAGAGATGATTGAAAAAGCCAAAGGGGAAACTGCCTATCTGCCATGC
                                IleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuProCys
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Site 2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27 yo. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.5 kb, insert size range 1.3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 019. Note: this is a NIH MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="IMAGE:5197372"
/clone_lib="NIH_MGC_114"
/lab_host="DH10B"
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KEYWORDS
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Contact: Takao Isogai
Genomics Laboratory
Helix Research Institute
1532-3 Yana, Kisarazu, Chi
Tel: 81-438-52-3975
Fax: 81-438-52-3986
                                                                                                                                                                                                                                                          782
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 879)
                                                           HRI human cDNA project
Unpublished (2000)
                                                                                                    Ota, T., Nishikawa, T.,
                                                                                          Yamamoto,J., Wakamatsu,A.,
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                      Chiba
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                      292-0812,
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clone NT2RP3002577
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Nagai, T., Sug
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AspGlnCysLeuLeuArgLeuAspValValPro-ProSerAsnArgAlaGlyThrIleAl
                                                                             AsnAlaSerThrGluTyrSerGlyThrTyrSerCysThrVallysAsnArgValGlySer
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/db xref="taxon:9606"
/clone=!NTZRP3002577"
/clone lib="NYZRP3"
/cell Type="teratocarcinoma"
/cell Tine="NYZ"
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/cell Safter 2-weeks retinoic acid (RA) induction"
a 182 c 213 g 230 t 7 others
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GATCAATGCCTGGTGCGTNTAAACGTTGTCCCTTCCAAATAAAGCTGGACTAATTGC

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REFERENCE
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Tissue Procurement: Lothar Hennighausen Ph.D., Chu-Xia Deng Ph.
Tissue Procurement: Lothar Hennighausen Ph.D., Chu-Xia Deng Ph.
Tissue Procurement: Lothar Hennighausen Ph.D., Chu-Xia Deng Ph.
Tissue Procurement: Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
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1 (bases 1 to 956)
NIH-MCC http://mgc.nci.nih.gov/
National Institutes of Health, Mammalian
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                   CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
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                                                                                                                                                                                                                                                                                                                                                                                                 /note="Organ: mammary; Vector: pCMV-SPORT6; Site_1: Sall; Site_2: NotI; Cloned unidirectionally. Primer: Oligo dT. Library constructed by Life Technologies. Investigators providing samples: Lothar Hennighausen/Chu-Xia Deng, NIH Reference for transgenic model: Xu et al., Nature Genetic; 37-43 (1999)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /tissue_type="tumor, gross tissue"
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/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Mus musculus"
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/clone_lib="NCI_CGAP_Mam3"
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                                                                                                                  Contact: Genoscope Genoscope - Centre National de Sequencage BP 191 91006 EVRY cedex - France Email: seqref@genoscope.cns.fr, Web : www Location/Qualifiers
                                                                                                                                                                                               Li,W.B., Gruber,C., Jessee,J. and Polayes, D. Full-length cDNA libraries and normalization Unpublished (2001)
                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae 1 (bases 1 to 824)
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                                                                     /organism="Homo sapiens"
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           CTCATTKGTCTTATCATCTTT
                                            LeuileGlyLeuileIlePhe
                                                                                 CCTTCAAATAAAGCTGGACTAATTGCAGGAGCCATTATAGGAACTTTGCTTKCTCTAGCG
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Tissue Procurement: Jeffrey Green M.D.
CDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLN
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
http://image.llnl.gov
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae;
1 (bases 1 to 775)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collect
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AspAspTyrTyrGlnAspLeuLysGlyArgValHisPheThrSerAsnAspLeuLysSer 100
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/clone_lib="NCI_CGAP_Mam6"
/sex="female, vIrgin"
/tissue_type="infiltrating_d
/dev_stage="5 months"
/lab_host="DH10B"
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cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLN
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM11053 row: g column: 08
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
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Tissue Procurement: Gilbert Smith,
cDNA Library Preparation: Life Te
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Contact: Robert Strausberg,
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          /note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: Sa Site 2: Not1; Cloned unidirectionally. Primer: Oligo of Library constructed by Life Technologies. Investigator providing samples: Gilbert Smith, NIH"

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                                                                                               /clone="IMAGE:5008543"
/clone lib="WCI CGAP Mam2"
/tissue type="tumor, biopsy
/dev stage="5 months"
/lab_host="DH10B"
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/strain="FVB/N-3"
/db_xref="taxon:10090"
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 885)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization
                                                                        Homo sapiens
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BP 191 91006 EVRY cedex - France
Email: segref@genoscope.cns.fr, Web : www
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Contact: Genoscope
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ha78e07.gl Canis cDNAs
clone ha78e07 5', mRNA
BM537136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Email: mccombie@cshl.org
Plate: ha78 row: e column:
Seq primer: -21M13UnivRev
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Fax: 516 367 8874
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PO Box 100, Cold Spring Harbor, NY 11724, USA
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Mammalia; Eutheria;
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                     CysArgPheThrLeuGlyProGluAspGlnGlyProLeuAspIleGluTrpLeuLeuSer
                                                                  AGTATCACTACTCCTGAACAGATGATTGAAAAGGCCCAAAGGGGGAAACTGCTTATTTGCCA
                                                                                  SerIleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuPro
                                                                                                                                   ATGGCGCTCCTGCGCGTTCGTCCTCCTGTGCGGAGTCGCGGATTTCACCAGAAGTTTG
                                                                                                                                                              MetAlaLeuLeuCysPheValLeuCysGlyValAlaAspLeuThrArgSerLeu
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 TGCAAATTTACCCTTAGTCCAGAAGACCAGGGACCGCTGGACATCGAGTGGCTGCTGTCA
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Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                         /note="Worker Lambda Zap II; The library was produced by Greg Hannon and Raymond Preston (Cold Spring Harbor Laboratory). This library is oligo(dT) primed using stratagene zap cDNA synthesis kit. It was made from dog testes. Please contact Greg Hannon (hannon@cshl.org) with any library related inquiries."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           clone_lib="Canis cDNAs from testes cells"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Canis familiaris"
/db_xref="taxon:9615"
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B1823597.1 GI:
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                                                                                                                                                                                     CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM11453 row: j column: 16
High quality sequence stop: 705.
                                                                                                                                                                                                                                                                                                                                                                     Mammalia; Eutheria; Primates; Catarrhini; Nimammalia; Eutheria; Primates; Catarrhini; 1 (bases 1 to 885)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
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603040961F1 NIH_MGC_115
                                                                                                                                                                                                                                                                                                           Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg,
                                                                                                                                                                                                                                                                                                                                                          Unpublished (1999)
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 /note="Organ: pooled brain, lung, testis; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source anonymous pool of 6 male brains, age range 23-27; I male the lung, age 27; and I male testis, age 69. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.8 kb,
                                                                                       /clone="IMAGE:5181807"
/clone_lib="NIH_MGC_115"
/lab_host="DH10B"
                                                                                                                                   organism="Homo sapiens"
|db_xref="taxon:9606"
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BI077977 702 bp mRNA linear EST 20-JUN-2001 602874325F1 NCI_CGAP_Mam2 Mus musculus cDNA clone IMAGE:5006094 5',
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BI077977
BI077977.1 GI
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mammalia; Eutheria; Rodentia; Sciurognath
1 (bases 1 to 702)
NIH-MCC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
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Plate: LLAM11047 row: a column:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can
                   GlyAspAlaSerIleAsnValThrAsnLeuGlnLeuSerAspIleGlyThrTyrGlnCys
                                                                 GATAACTACTATCCGGATCTGAAAGGACGGGTACATTTTACGAGTAACGATGTCAAGTCT
                                                                                                                                                                                                 TGCAAGTTTACTCTCAGTCCCGAAGACCA-GGACCACTGGACATTGAATGGCTGATATCC
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 GGCGACGCATCTATAAATGTGACCAACCTGCAGCTGTCGGACATTGGCACTTACCAGTGC
                                                                                      AspAspTyrTyrGlnAspLeuLysGlyArgValHisPheThrSerAsnAspLeuLysSer 100
                                                                                                                                 CCGTCTGATAACCAGATAGTGGATCAAGTGATCATTTTGTATTCTGGAGACAAAATTTAT
                                                                                                                                                    ProAlaAspAsnGlnLysValAspGlnValIleIleLeuTyrSerGlyAspLysIleTyr
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Location/Qualifiers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: Sa. Site 2: NotI; Cloned unidirectionally. Primer: Oligo of Library constructed by Life Technologies. Investigator providing samples: Gilbert Smith, NIH"

172 c 173 g 160 t
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/dev stage="5 months"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Mus musculus"
/strain="FVB/N-3"
/db_xref="taxon:10090"
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Sciurognathi; Muridae;
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Full-length cDNA libraries
Unpublished (2001)
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                                                                                                                                                                                                                                                       /clone_lib="LTI NFL006_PL2"
/tissue_type="placenta"
/tissue_type="placenta"
/note="Wector: pcMvSpORT 6; Site_1: NotI; 1st strand cDNA
/note="Wector: pcMvSpORT 6; Site_1 notI; 1st strand cDNA
was primed with a NotI-oligo(dT) primer. Five prime end
enriched, double-stranded cDNA was digested with Not I and
cloned into the Not I and Eco RV sites of the pcMvSpORT 6
vector. Library was normalized. Library was constructed by
Life Technologies. Contact: Feng Liang Life Technologies,
a division of Invitrogen 9800 Wedical Center Drive
Rockville, Maryland 20850, USA Fax: (1) 301 610 8371
Email: fliang@lifetech.com URL
http://fullenctp.ivitrogen.com/
http://fillenctp.ivitrogen.com/
http://fillenctp.ivitr
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/clone="CL0BB015ZG03"
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200 LysAsnAl ::: 666 ACGTCCAC 220 SerAspGl 708	161 LysCysG1 547 AAATGTGA 181 SerGlnLy 607 TCACAGAA	121 LysVally	81 ASPASPTY	41 CYSAIGH 	
aSerThrGluTyrSerGly	uProLysGluGlySerLeui ACCAAAGAAGGTTCACTTV SLeuProThrLeuTrpLeu AATGCCCACTTCATGGTTA	SLYSAlaProGlyValGly.	rTyrGlnAspLeuLysGly.		CCTGCTGTGCTTCGTGCTCC TThrProGluGlnMetIle
LysAsnAlaSerThrGluTyrSerGlyThrTyrSerCysThrValLysAsnArgValGly ::: :: :::	LysCysGluProLysGluGlySerLeuProLeuLeuTyrGluTrpGlnLysLeuSerAsn	LysValLysLysAlaProGlyValGlyAsnLysLysIleGlnLeuThrValLeuLeuLys	AspAspTyrTyrGlnAspLeuLysGlyArgValHisPheThrSerAsnAspLeuLysSer	CAGGCTGATAATCAGAAGGTGGATCAAGTGATTATTATATTCTGGAGACAAAATTAT	ATGGCGCTCCTGCTGTGCTCGTGCTCCTGTGCGGAAGTAGTGGATTTCGCCAGAAGTTTG SerIleThrThrProGluGlnMetIleGluLysAlaLysGlyGluThrAlaTyrLeuPro
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